

BULLETIN  
MEMPHIS STATE UNIVERSITY  
**Undergraduate Catalog Issue 1970-71**



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**BULLETIN OF  
MEMPHIS STATE UNIVERSITY**

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*The Fifty-ninth session will open  
August 27, 1970*

**UNDERGRADUATE CATALOG 1970-71**

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**MEMPHIS, TENNESSEE**

**FEBRUARY 1970**

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Inquiries will receive attention if addressed to the administrative offices below at Memphis State University, Memphis, Tennessee 38111.

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Extension Courses	Director, The Division of Continuing Studies
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JANUARY							FEBRUARY							MARCH						
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# Calendar

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## FALL SEMESTER, 1970

AUGUST 27, THURSDAY	Meeting of new members of the University faculty, University Auditorium, 9:00 a.m.
AUGUST 28, FRIDAY	Meeting of the entire University faculty, University Auditorium, 9:00 a.m.
AUGUST 28, FRIDAY	Meeting of the University faculty by colleges and departments, 2:00 p.m.
AUGUST 29, SATURDAY	Registration, The Graduate School.
AUGUST 31, MONDAY through	Registration week. For detailed dates and times see the <i>Bulletin (Schedule of Classes)</i> for the fall semester, 1970.
SEPTEMBER 2, WEDNESDAY	Classes meet as scheduled.
SEPTEMBER 3, THURSDAY	
SEPTEMBER 7, MONDAY	Holiday: Labor Day.
SEPTEMBER 10, THURSDAY	Last day for adding courses.
SEPTEMBER 24, THURSDAY	Last day for dropping courses.
OCTOBER 2, FRIDAY	Holiday: West Tennessee Education Association.
OCTOBER 8, THURSDAY	English Proficiency Examination.
OCTOBER 9, FRIDAY	Last day for making application to dean of appropriate college for degrees to be conferred, December, 1970.
OCTOBER 29, THURSDAY	Mid-semester deficiency reports due in Records Office.
NOVEMBER 11, WEDNESDAY	Holiday: Veterans' Day.
NOVEMBER 26, THURSDAY through	Thanksgiving recess.
NOVEMBER 29, SUNDAY	
DECEMBER 11, FRIDAY	Final examinations begin.
DECEMBER 19, SATURDAY	Commencement.

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## SPRING SEMESTER, 1971

JANUARY 9, SATURDAY	Registration, The Graduate School, 9:00 a.m.
JANUARY 11, MONDAY through	Registration. For detailed dates and times see the <i>Bulletin (Schedule of Classes)</i> for the spring semester, 1971.
JANUARY 13, WEDNESDAY	Classes meet as scheduled.
JANUARY 14, THURSDAY	
JANUARY 20, WEDNESDAY	Last day for adding courses.
FEBRUARY 3, WEDNESDAY	Last day for dropping courses.
FEBRUARY 15, MONDAY	Last day to make application to dean of appropriate college for degrees to be conferred in May, 1971.
FEBRUARY 18, THURSDAY	English Proficiency Examination.
MARCH 3, WEDNESDAY	Mid-term deficiency reports due in Records Office.

MARCH 7, SUNDAY  
*through*  
 MARCH 14, SUNDAY  
 APRIL 30, FRIDAY  
 MAY 8, SATURDAY

Spring Holidays.

Final examinations begin.  
 Commencement.

## THE SUMMER SESSION, 1971

### *First Six-Week Term*

MAY 31, MONDAY  
*through*  
 JUNE 1, TUESDAY  
 JUNE 2, WEDNESDAY  
 JUNE 4, FRIDAY

Registration. For detailed dates and times see the *Bulletin (Schedule of Classes)* for The Summer Session, 1971.

Classes meet as scheduled.

Last day for adding first-term or full-session courses.

JUNE 8, TUESDAY  
 JUNE 14, MONDAY  
 JUNE 15, TUESDAY  
 JUNE 17, THURSDAY

Last day for dropping first-term courses.

Study day for first-term students.

Last day for dropping full-session courses.

English Proficiency Examination, 3 p.m., Patterson Hall.

JULY 5, MONDAY  
 JULY 8, THURSDAY

Holiday: Independence Day.

Final examinations for first term.

### *Second Six-Week Term*

JULY 12, MONDAY  
 JULY 13, TUESDAY  
 JULY 15, THURSDAY  
 JULY 16, FRIDAY

Course adjustment day.

Classes meet as scheduled.

Last day to add second-term courses.

Last day for making application to dean of appropriate college for degrees to be conferred August, 1971.

JULY 19, MONDAY  
 AUGUST 13, FRIDAY  
 AUGUST 14, SATURDAY

Last day for dropping second-term courses.

Final examinations.

Commencement.

### *Nine-Week Term*

JUNE 14, MONDAY

Registration. For detailed dates and times see the *Bulletin (Schedule of Classes)* for The Summer Session, 1971.

JUNE 15, TUESDAY  
 JUNE 17, THURSDAY

Classes meet as scheduled.

English Proficiency Examination, 3 p.m., Patterson Hall.

JUNE 18, FRIDAY  
 JUNE 25, FRIDAY  
 JULY 5, MONDAY  
 JULY 12, MONDAY

Last day to add nine-week courses.

Last day to drop nine-week courses.

Holiday: Independence Day.

Study day for those enrolled in nine-week courses.

AUGUST 13, FRIDAY  
 AUGUST 14, SATURDAY

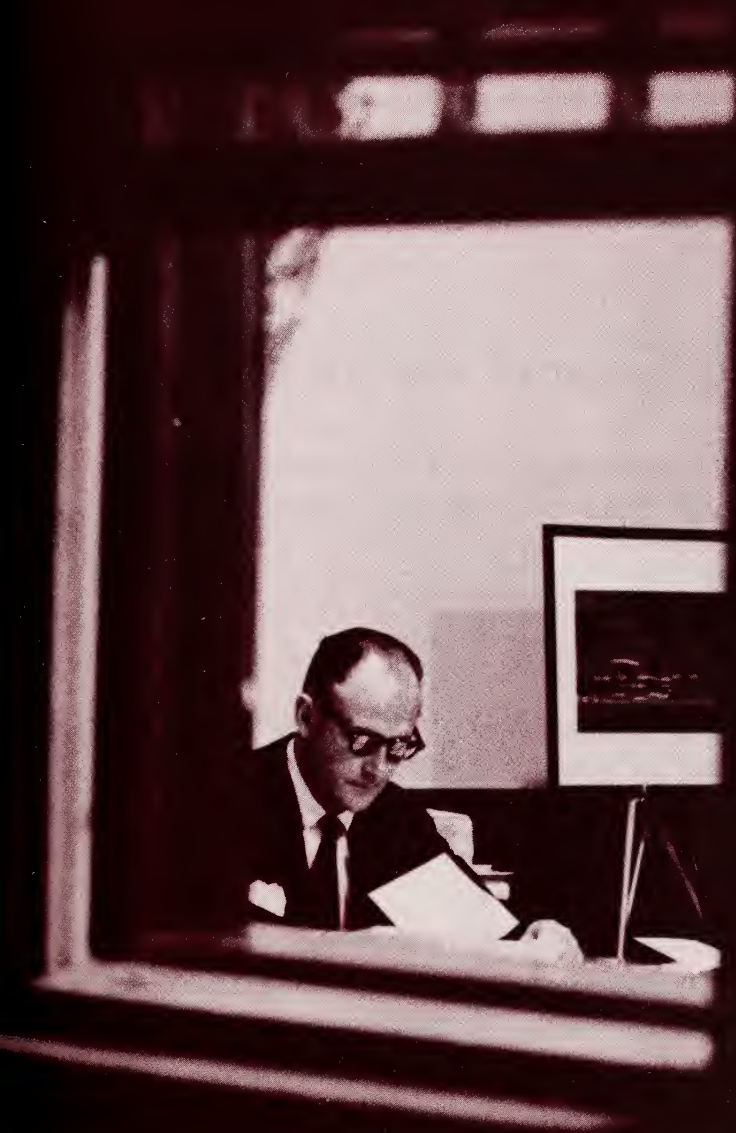
Final examinations.

Commencement.



# Faculty and Staff

1



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FRED MIDDLETON, B.S., *Sports Information Director*

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- MARY ALMA WHITAKER, B.S., M.S., *Assistant Professor Emeritus of Home Economics*

## THE FACULTY

- WILLIAM CARTER ABBETT** (1949), *Assistant Professor of English*  
B.S., 1948, Memphis State University; M.A., 1949, Vanderbilt University.
- PATRICIA HAYES ADAMS** (1969), *Instructor in Biology*  
B.S., 1964, M.S., 1970, Memphis State University.
- DIMITRIOS CONSTANTINOS AGOURIDIS** (1967), *Associate Professor of Electrical Engineering*  
B.S., 1959, M.S., 1961, Ph.D., 1966, University of Minnesota.
- FRANK R. AHLGREN** (1969), *Special Lecturer in Journalism*  
Retired Editor, *The Commercial Appeal*, (Memphis).
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B.A., 1950, M.A., 1951, Vanderbilt University.
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B.A., 1926, Winthrop College; M.A., 1946, Teachers College, Columbia University.
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B.S. 1931, Union University; M.A., 1951, George Peabody College.
- HERBERT GRAVES ALLBRITTEN** (1963), *Professor of Chemistry*  
B.S., 1931, Murray State University; M.S., 1941, University of Kentucky; Ph.D., 1951, The Pennsylvania State University.
- CHARLENE JAYROE ALLEN** (1960), *Instructor in English*  
B.A., 1957, Southwestern at Memphis; M.A., 1958, University of Alabama.
- CHARLES HENRY ALLGOOD** (1955), *Professor of Art*  
B.F.A., 1950, M.F.A., 1951, University of Georgia.
- RUTH BRITTON ALMY** (1958), *Instructor in Geography*  
B.S., 1956, M.A., 1957, Memphis State University.
- OTILIE MARIA-ANNA AMMINGER** (1967), *Associate Professor of Mechanical Engineering*  
Diplom-Ingenieur, 1947, D.Sc., 1952, Technical University of Vienna (Austria).
- WILLIAM LEO AMMINGER** (1966), *Professor of Mechanical Engineering*  
Diplom-Ingenieur, 1952, Technical University of Vienna (Austria); Ph.D., 1963, Washington University.
- EDWARD LUVERNE ANGUS** (1966), *Assistant Professor of Political Science*  
B.A., 1961, University of Kentucky; M.A., 1963, The Pennsylvania State University.

- \*BARBARA L. ANTONELLI (1963), *Assistant Professor of Health, Physical Education, and Recreation*  
B.A., 1960, Webster College; M.A., 1963, Washington University.
- PAUL L. ARCHIBALD (1968), *Assistant Professor of Education*  
B.S., 1946, Lambuth College; M.A., 1953, Memphis State University; Ed.D., 1967, Mississippi State University.
- THOMAS C. ASHCRAFT, *Adjunct Assistant Professor of Voice*  
B.S., 1959, M.A., 1962, Memphis State University.
- MARVIN E. BAILEY (1966), *Instructor in English*  
B.A., 1962, Southwestern at Memphis; M.A., 1964, Memphis State University.
- JOHN PAUL BAKKE (1967), *Associate Professor of Speech and Drama*  
B.A., 1960, Luther College; M.A., 1963, Ph.D., 1966, University of Iowa.
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- HAROLD RAMSEY BANCROFT (1962), *Associate Professor of Biology*  
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- MERRILL R. BANKESTER (1969), *Assistant Professor of Journalism*  
B.A., 1959, M.A., 1967, University of Alabama.
- PETER BANNON (1947), *Professor of English*  
B.A., 1936, M.A. 1937, Ph.D., 1943, University of Iowa.
- \*MELVIN C. BARBER (1959), *Instructor in Geography*  
B.S., 1958, Memphis State University; M.A., 1959, George Peabody College.
- WILLIAM B. BARTON, JR. (1958), *Professor of Philosophy*  
B.A., 1944, Abilene Christian College; S.T.B., 1947, S.T.M., 1948, Ph.D., 1955, Harvard University.
- MARSHALL DENVER BASHAM (1967), *Instructor in English*  
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- MARY VROMAN BATTLE (1968), *Instructor in English*  
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- GLORIA JEAN BAXTER (1965), *Assistant Professor of Speech and Drama*  
B.A., 1964, Memphis State University; M.A., 1965, Northwestern University.
- JOHN P. BEIFUSS (1966), *Associate Professor of English*  
B.A., 1952, St. Mary of the Lake; M.A., 1959, Ph.D., 1964, Loyola University (Chicago).
- MARY JOYCE BELL (1969), *Instructor in Nursing*  
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\*On leave of absence, 1969-70.



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B.S.E., 1949, Arkansas A&M College; M.Ed., 1954, University of Arkansas; Ed.D., 1967, George Peabody College.

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- AARON M. BOOM (1949), *Professor of History*  
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- CARROLL R. BOWMAN (1965), *Associate Professor of Philosophy*  
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- CATHERINE C. BOYD (1967), *Instructor in English*  
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- DONALD A. BOYD (1957), *Professor of Finance*  
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- HARRY EDWARD BOYD (1967), *Associate Professor of Education*  
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- AVERY CHURCH (1969), *Assistant Professor of Anthropology*  
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- DON PEARSON CLAYPOOL (1956), *Professor of Chemistry*  
B.S., 1946, Tulane University; M.S., 1950, Ph.D., 1952, University of Kentucky.
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- MYRTLE S. COBB (1940), *Associate Professor of Education*  
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- SAMUEL VADAH COCHRAN, JR. (1961), *Instructor in English*  
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- BETTY LOUISE COCKING (1968), *Instructor in Mathematics*  
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- DALVAN M. COGER (1965), *Instructor in History*  
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- WILLIAM DAVID COLES (1966), *Instructor in Health, Physical Education, and Recreation*  
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- JAMES ALAN COLLIER (1967), *Professor of Insurance*  
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- BETTY MAY COLLINS (1966), *Assistant Professor of Speech and Drama*  
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- PATRICK BURRELL COLLINS (1963), *Instructor in English*  
B.S.E., 1960, Delta State College; M.A., 1961, University of Mississippi.
- JAMES W. COLMEY (1965), *Professor of Education, Director of Bureau of Educational Research and Services*  
B.B.A., 1946, University of Texas; M.A., 1947, Ed.D., 1952, Teachers College, Columbia University.
- R. J. COLTHARP (1945), *Professor of Technology*  
B.A., 1927, Wesmar College; M.S., 1938, Kansas State University.
- MOZELLE LUNDY COMMONS (1946), *Associate Professor, Library*  
A.B., 1934, University of Tennessee; B.S.L.S., 1942, George Peabody College.
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- VICTOR FEISAL (1959), *Associate Professor of Biology, Assistant Dean of The College of Arts and Sciences*  
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B.B.A., 1962, Memphis State University; M.B.A., 1963, University of Arkansas.

CHARLES E. LONG (1957), *Professor of English and Germanic Philology*

B.A., 1951, Henderson State Teachers College; M.A., (English), 1955, M.A. (German), 1956, Ph.D., 1963, University of Arkansas.

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- FRANCES CLEO LONG (1969), *Instructor in Home Economics*  
B.S., 1953, Memphis State University; M.S., 1955, A.D.A., 1955, University of Iowa.
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- WADE HAMPTON LONG (1967), *Instructor in Physics*  
B.S., 1967, Memphis State University.
- RICHARD WILLIAM LOUNSBURY (1968), *Professor of Geology*  
B.S., 1941, University of Chicago; Ph.D., 1951, Stanford University.
- PAUL RUSSELL LOWRY (1963), *Associate Professor of Management, Director, Bureau of Business and Economic Research*  
B.S., 1941, M.B.A., 1959, Texas A&M University.
- PAUL A. LUBENKOV (1969), *Instructor in English*  
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- FREDERICK LUBRANI (1962), *Professor of Music*  
B.S., 1939, University of Cincinnati; Diploma in Clarinet, 1939, Cincinnati Conservatory of Music; M.M., 1946, Cincinnati Conservatory of Music.
- DAVID NORMAN LUMSDEN (1967), *Assistant Professor of Geology*  
B.A., 1958, M.A., 1960, State University of New York at Buffalo; Ph.D., 1965, University of Illinois.
- MICHAEL BURKE LUPFER (1964), *Assistant Professor of Psychology*  
B.A., 1959, Southwestern at Memphis; M.S., 1963, Ph.D., 1964, University of Miami.
- SHIRLEY LAND LUPFER (1963), *Assistant Professor of Psychology*  
B.A., 1959, Coker College; M.A., 1961, Vanderbilt University.
- MAX LUSTIG (1968), *Assistant Professor of Chemistry*  
B.S., 1957, University of California at Los Angeles; Ph.D., 1962, University of Washington.
- RAYMOND MARTIN LYNCH (1966), *Associate Professor of Music*  
B.S., 1953, Davidson College; M.M., 1957, D.M., 1965, University of Michigan.
- WILMER EVERETT MACNAIR (1966), *Associate Professor of Sociology*  
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- B. JACK MADDOX (1968), *Associate Professor of Art*  
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- ROBERT E. MAGOWAN (1967), *Associate Professor of Technology*  
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- HARRY RICHARD MAHOOD (1964), *Associate Professor of Political Science*  
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B.S., 1955, Utah State University; M.S., 1959, University of Illinois.
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- STEPHEN D. MALIN (1964), *Associate Professor of Speech and Drama*  
B.A., 1957, The Pennsylvania State University; M.A., 1962, Ph.D., 1968, University of Florida.
- ROBERT RIGGS MARCHINI (1968), *Assistant Professor of Physics*  
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- HERBERT JOHN MARKLE (1951), *Professor of Economics, Dean of The College of Business Administration*  
B.B.A., 1932, University of Minnesota; M.A., 1949, Ph.D., 1951, University of Iowa.
- IRMA GREER MARKS (1944), *Assistant Professor of Chemistry*  
B.S., 1944, Memphis State University; M.S., 1950, University of Arkansas.
- DAVID LEE MARSHALL (1968), *Assistant Professor of Chemistry*  
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- ROBERT HERMAN MARSHALL (1960), *Professor of Chemistry*  
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- WILLIAM RAY MARTY (1965), *Associate Professor of Political Science*  
B.A., 1960, University of Oklahoma; M.A., 1964, Ph.D., 1968, Duke University.
- CHARLOTTE M. MASHBURN (1969), *Instructor in Mathematics*  
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- JAMES F. MASON, JR. (1967), *Captain, United States Air Force, Assistant Professor of Aerospace Studies*  
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- LINDA MATOUSEK (1969), *Assistant Professor of Music*  
A.B., 1961, M.A., 1964, Western Reserve University.
- JAMES S. MATTHEWS (1949), *Professor of Geography*  
B.S., 1936, M.A., 1941, Kent State University; Ph.D., 1949, University of Chicago.
- DOUGLAS WAYNE MAX (1969), *Instructor in Civil Engineering*  
B.S.C.E., 1967, Tennessee Technological University; M.S.C.E., 1969, University of Missouri at Rolla.
- ETHEL TAYLOR MAXWELL, *Instructor in Music*  
B.A., 1939, Southwestern at Memphis; M.A., 1956, Memphis State University.

- JAMES EUGENE MCALPIN (1961), *Assistant Professor of Technology*  
B.S., 1957, Memphis State University; M.A., 1959, George Peabody College.
- ELNA BROWNING MCBRIDE (1946), *Professor of Mathematics*  
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- JAMES R. MCCANN (1968), *Adjunct Professor of Psychology*  
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- JANE STONE MCCRARY (1966), *Instructor in English*  
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- ELLEN JEAN McDONALD (1969), *Instructor in English*  
B.S., 1966, M.A., 1969, Bradley University.
- JOE ALBERT MCEACHERN (1962), *Assistant Professor of Mathematics*  
B.S., 1931, University of Tennessee; M.S., 1961, George Washington University.
- MAURICE CRAWFORD MCGEE (1966), *Assistant Professor of Physics*  
B.S., 1962, Memphis State University; M.A., 1965, The College of William and Mary.
- MAJOR GERALD MCGOUGH (1967), *Instructor in French*  
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- ROBERT W. MCGOWAN (1949), *Professor of Biology*  
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- VERNA SUE AUSTIN MCHANEY (1967), *Clinician, Speech and Hearing Center*  
B.A., 1963, University of Arkansas; Master of Communication Disorders, 1965, University of Oklahoma.
- HUGH LANSDEN MCHENRY (1968), *Assistant Professor of Mathematics*  
B.S., 1960, Tennessee Technological University; M.A., 1961, George Peabody College.
- JAMES EDWARD MCINNIS (1968), *Instructor in English*  
B.S., 1959, University of Southern Mississippi; M.A., 1960, University of Wyoming.
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- KELL FREEMAN MITCHELL, JR. (1963), *Assistant Professor of History*  
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- CHARLES L. MONTGOMERY, JR. (1969), *Instructor in Speech and Drama, Director of Forensics*  
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- MILDRED CARTER MONTGOMERY (1963), *Associate Professor, Library*  
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- JOE ARTHUR MOORE (1963), *Professor of Law*  
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- NELLE ELIZABETH MOORE (1956), *Assistant Professor of Education*  
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B.A., 1966, Arkansas State Teachers College; M.A., 1967, University of Texas.
- SAM B. MORGAN (1968), *Adjunct Professor of Psychology*  
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JUNE ROSE MORRIS (1968), *Instructor in Education*

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HARWOOD F. MULLIKIN (1967), *Professor of Mechanical Engineering*

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B.A., 1959, Brigham Young University; M.A., 1960, Yale University.

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JOHN MILLEDGE NAIL (1962), *Instructor in English*

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RONALD ANTHONY NALDI (1967), *Assistant Professor of Music*

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DELBERT P. NAVE (1950), *Associate Professor of Art*

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WILLIAM RICHARD NELSON (1969), *Professor of Political Science*

J.D., 1949, University of Utah; L.L.M., 1958, New York University; M.A., 1959, Miami University; Ph.D., 1965, University of Colorado.

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- CHARLES HOWARD NEWTON (1963), *Professor of Sociology*  
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- TREVOR NIGHTINGALE (1968), *Instructor in English*  
A.B., 1967, Harvard University; M.A., 1968, Brown University.
- MARIANNE McCULLOUGH NOLAN (1969), *Instructor, Library*  
B.A., 1967, Baldwin-Wallace College; M.S.L.S., 1968, University of Illinois.
- ROGER EMERSON NOLTE (1969), *Professor of Electrical Engineering, Dean of the Herff College of Engineering*  
B.S.E.E., 1943, M.S.E.E., 1948, Ph.D., 1955, Iowa State University.
- PHILLIP K. NORTHMAN (1967), *Instructor in English*  
A.B., 1964, Wayne State University; M.A., 1965, Northwestern University.
- ELBERT F. NOTHERN (1958), *Professor of Education*  
B.S.E., 1947, University of Arkansas; Ed.M., 1949, Harvard University; Ed.D., 1953, University of Arkansas.
- HELEN CLEOLA R. NUNN (1968), *Associate Professor of Home Economics*  
B.S., 1941, Arkansas AM&N College; M.S., 1954, Ph.D., 1966, Cornell University.
- RICHARD B. O'CONNELL (1967), *Professor of German*  
B.A., 1946, M.A., 1949, Ph.D., 1951, University of Minnesota.
- MICHAEL PATRICK O'HARA (1967), *Instructor in Art*  
B.F.A., 1960, Memphis State University; M.F.A., 1966, University of Georgia.
- LEWIS B. O'KELLY (1962), *Assistant Professor of Physics*  
B.S., 1957, Memphis State University; M.S., 1960, Vanderbilt University.
- VAN NORWOOD OLIPHANT (1969), *Associate Professor of Management*  
B.B.A., 1963, University of Mississippi; M.B.A., 1964, Memphis State University; D.B.A., 1969, Mississippi State University.
- MARCUS W. ORR (1959), *Professor of History*  
B.A., 1952, Southwestern at Memphis; M.A., 1956, Ph.D., 1958, University of Illinois
- MICHAEL McDONALD OSBORN (1966), *Professor of Speech and Drama*  
B.A., 1958, M.A., 1959, University of South Carolina; Ph.D., 1963, University of Florida.
- SUZANNE SMITH OSBORN (1969), *Instructor in Speech and Drama*  
A.B., 1958, West Virginia University; M.A., 1961, University of Florida.
- GEORGE D. OSBORNE (1966), *Associate Professor of Music*  
B.M., 1960, Oklahoma City University; M.M., 1964, Indiana University.
- WILLIAM ROBERT OSBORNE (1955), *Professor of English*  
B.A., 1948, Ouachita College; M.A., 1949, Ph.D., 1955, George Peabody College.



- BETTY HULL OWEN (1959), *Assistant Professor of Health, Physical Education, and Recreation*  
B.S., 1956, Memphis State University; M.P.E., 1960, Purdue University.
- WILLIAM HOWARD PAGE (1962), *Instructor in English*  
B.S., 1956, Middle Tennessee State University; M.A., 1957, George Peabody College.
- GEORGE WILSON PARCHMAN (1951), *Associate Professor of Biology*  
B.S., 1948, M.A., 1949, George Peabody College.
- GARY ROLAND PARKER (1969), *Instructor in Art*  
B.A., 1967, M.A., 1969, Florida State University.
- SAMMY JOE PARKER (1969), *Instructor in Speech and Drama*  
B.S., 1967, M.S., 1969, Murray State University.
- MAURICE ALFRED PARKINSON (1962), *Associate Professor of French*  
B.A., 1927, Erskine College; M.A., 1944, George Peabody College; Ph.D., 1954, University of North Carolina.
- SHERMAN WILLIAM PARRY (1962), *Assistant Professor of Mathematics*  
B.S., 1940, Union College; M.S., 1962, Purdue University.
- JOHN WEST PATRICK (1962), *Assistant Professor of Health, Physical Education, and Recreation*  
B.S., 1942, M.Ed., 1950, Mississippi State University.
- HERMAN F. PATTERSON (1955), *Associate Professor of Office Administration*  
B.S., 1949, Berea College; M.A., 1954, University of Kentucky; Ed.D., 1967, Colorado State College.
- CARL LOFSTROM PAUL (1965), *Instructor in History*  
B.S., 1952, M.A., 1952, University of Houston.
- JAMES FRANKLIN PAYNE (1968), *Assistant Professor of Biology*  
B.S., 1962, University of Tennessee at Martin; M.S., 1965, Memphis State University; Ph.D., 1968, Mississippi State University.
- VIRGINIA RUTH PEARCE (1965), *Instructor in English*  
B.A., 1959, Union University; M.A., 1963, University of Mississippi.
- C. EDWIN PEARSON (1966), *Professor of Distributive Education*  
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- BINFORD H. PEEPLES (1957), *Professor of Office Administration*  
B.S., 1949, Mississippi State University; M.S., 1952, Florida State University; M.S., 1961, University of Mississippi; Ed.D., 1964, University of Kentucky.
- CARROLL L. PELL (1961), *Professor of French*  
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B.A., 1942, University of New Mexico; M.A., 1946, Northwestern University.

- THOMAS B. PRESTON (1967), *Professor of Law*.  
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- JOSEPH PAUL PRICE (1967), *Instructor in Health, Physical Education, and Recreation*  
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- ERICH PAUL PRIEN (1969), *Professor of Psychology*  
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- CLARKE WAYNE PROCTOR (1969), *Assistant Professor of Mathematics*  
B.S., 1965, M.S., 1966, Ph.D., 1969, University of Houston.
- DOROTHY SPROLES PROVINE (1964), *Instructor in History*  
B.A., 1959, Southern Methodist University; M.A., 1963, Louisiana State University.
- DEWEY FRANKLIN PRUETT (1963), *Assistant Professor, Library*  
B.S., 1947, Abilene Christian College; M.A., 1956, University of Louisville.
- VIRGINIA DIANE PRUITT (1968), *Instructor in English*  
B.A., 1965, St. Olaf College; M.A., 1966, University of North Carolina.
- RUSSELL ORIS PUGH (1969), *Professor of Music*  
B.S., 1950, M.S., 1952, Advanced Certificate in Music Education, 1965, University of Illinois; Ed.D., 1966, University of Arkansas.
- ISABEL R. PULLEN (1961), *Assistant Professor of French*  
B.A., 1933, Mississippi State College for Women; M.A., 1957, University of Mississippi.
- JESSE ALLEN PURIFOY (1969), *Assistant Professor of Mathematics*  
B.A., 1963, M.A., 1965, Ph.D., 1969, University of Texas.
- LEA GIBBS QUEENER (1954), *Associate Professor of Speech and Drama*  
B.S., 1956, M.A., 1957, Memphis State University; Ph.D., 1966, Northwestern University.
- GABRIEL PERRY RACZ (1967), *Professor of Economics*  
Baccalaureat, 1933, Gymnasium, Budapest, Hungary; Ph.D., 1942, University of Budapest.
- RAMA RAGHAVENDRA RAO (1969), *Instructor in English*  
B.A., 1958, M.A., 1962, University of Mysore, India; M.A., 1966, Utah State University.

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NOEL GEORGE RAPP (1954), *Associate Professor of Speech and Drama*

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BASIL RATIU (1960), *Professor of French*

A.A., 1947, A.B., 1947, University of Chicago; A.M., 1949, Indiana University; Ph.D., 1960, Columbia University.

EARL R. RATLIFF (1969), *Captain, United States Air Force, Assistant Professor of Aerospace Studies*

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FLORA HAYES RAWLS (1930), *Professor of Education, Dean of Women*

B.A., 1925, M.A., 1930, Vanderbilt University; LL.D., 1964, Lambuth College.

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LETICIA GAYLE RAYBURN (1966), *Associate Professor of Accountancy*

B.S., 1961, Murray State University; M.S., 1962, University of Mississippi; Ph.D., 1966, Louisiana State University; C.P.A., 1962, Mississippi, 1963, Louisiana.

GARY ROBIN REBHOLZ (1969), *Instructor in English*

B.A., 1961, University of Washington; M.A., 1967, University of California.

JOSEPH EUGENE REDDEN (1968), *Associate Professor of Education*

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B.S., 1958, Memphis State University; M.M., 1960, Eastman School of Music.

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B.S., 1934, Clemson University; Ph.D., 1939, Cornell University.
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- EUGEN SCHOENFELD (1965), *Associate Professor of Sociology*  
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- CHARLES ROY SCHROEDER (1968), *Assistant Professor of Health, Physical Education, and Recreation*  
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- JOHN EDWARD SCHWAIGER (1956), *Instructor in Chemistry*  
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B.S., 1944, Buffalo State Teachers College; M.Ed., 1952, University of Houston; Ph.D., 1961, The Ohio State University.
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- REBECCA ANNE STOUT (1966), *Instructor in English*  
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- JAMES ANDERSON STOVER, JR. (1969), *Assistant Professor of Mathematics*  
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- CALVIN MOORMAN STREET (1939), *Professor of Technology*  
B.S., 1939, Memphis State University; M.S., 1946, Ed.D., 1953, University of Tennessee.
- FRANCES LOUISE STREET (1957), *Assistant Professor of Mathematics*  
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B.S., 1961, M.A., 1964, North Texas State University.
- HARRY HARMON SUMMER (1961), *Professor of Marketing*  
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- CURTIS SUPLEE (1968), *Instructor in English*  
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- EVERETT L. SUTTER (1968), *Adjunct Professor of Psychology*  
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- HENRY DAVID SWANSON (1968), *Associate Professor of Speech and Drama*  
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- JAMES E. SWEARENGEN (1969), *Assistant Professor of Business Law*  
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- KAORU PETER TAKAYAMA (1967), *Assistant Professor of Sociology*  
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- JAMES CALDWELL WILLIAMS (1967), *Assistant Professor of Chemistry*  
B.S., 1955, Ouachita College; Ph.D., 1964, University of Missouri.
- RALPH WHITSON WILLIAMS (1966), *Professor of Management*  
B.S., 1958, Purdue University; M.B.A., 1961, University of Washington; D.B.A., 1966, University of Oregon.
- ROY H. WILLIAMS (1967), *Associate Professor of Management*  
B.S., 1955, Delta State College; M.S., 1962, University of Mississippi; Ph.D., 1967, University of Alabama.
- WILLIAM B. WILLIAMS, III (1968), *Captain, United States Air Force, Assistant Professor of Aerospace Studies*  
B.S., 1959, M.S., 1961, Mississippi State University.

- WILLIAM ROBERT WILLIAMS (1961), *Assistant Professor of English*  
B.A., 1957, Lambuth College; M.A., 1961, Memphis State University.
- LEON AUSTIN WILSON (1969), *Instructor in English*  
B.A., 1964, Valdosta State College; M.A., 1967, University of Georgia.
- LINDA HELEN WILSON (1968), *Instructor in Mathematics*  
B.A., 1963, Mount Holyoke College; M.A., 1968, University of Colorado.
- MAJOR LOYCE WILSON (1964), *Associate Professor of History*  
B.A., 1950, Vanderbilt University; M.A., 1953, University of Arkansas; Ph.D., 1964, University of Kansas.
- ARTHUR PETER WINFREY, III (1966), *Instructor in Management*  
B.S., 1955, U. S. Naval Academy.
- JOHN ALLEN WINFREY (1958), *Assistant Professor of Mathematics*  
B.S., 1926, U. S. Naval Academy; M.S., 1958, Memphis State University.
- CLYDE WINTER, JR. (1968), *Instructor in Art*  
B.A., 1958, Birmingham-Southern College; M.A., 1968, East Tennessee State University.
- BYRON HOOPER WISE (1964), *Assistant Professor of Biology*  
B.S., 1950, M.S., 1953, Ph.D., 1962, University of Florida.
- MARY WITT (1965), *Professor of Education*  
B.S., 1938, Memphis State University; M.A., 1942, Ed.D., 1954, George Peabody College.
- SEOK PIN WONG (1965), *Associate Professor of Mathematics*  
M.S., 1962, University of Delaware; Ph.D., 1967, University of Illinois.
- RUTH G. WOODBURY (1953), *Instructor in History*  
B.A., 1940, M.A., 1947, University of Mississippi.
- ALBERT HAINES WOOLLETT (1963), *Associate Professor of Physics*  
B.A., 1949, M.S., 1950, University of Mississippi; Ph.D., 1956, University of Oklahoma.
- JIMMIE WRIGHT (1968), *Instructor in Nursing*  
B.S.N., 1945, University of Tennessee School of Nursing.
- LARRY WRIGHT (1967), *Instructor in Health, Physical Education, and Recreation*  
B.S., 1958, Memphis State University.
- TZE SUN WU (1964), *Professor of Civil Engineering*  
B.S., 1941, National Chiao-Tung University; M.S., 1949, University of Washington; Ph.D., 1952, University of Illinois.
- MARY ANN PERRY WUSSOW (1968), *Instructor in Health, Physical Education, and Recreation*  
B.S., 1964, East Carolina University; M.A., 1968, George Peabody College.
- LAWRENCE WYNN (1950), *Professor of English*  
B.A., 1936, Emory University; M.A., 1940, Duke University; M.A., 1947, Ph.D., 1951, Princeton University.

## THE FACULTY

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ARTHUR L. YEHLE (1967), *Assistant Professor of Psychology*  
B.E.E., 1948, Cornell University; M.S., 1966, Ph.D., 1967, University of Miami.

DAVID YELLIN (1964), *Associate Professor of Speech and Drama*  
B.A., 1937, The Pennsylvania State University; M.A., 1963, Teachers College, Columbia University.

WILLIAM WARREN YOUHASS (1967), *Instructor in Music*  
B.Mus., 1965, Ithaca College; M.Mus., 1967, University of Illinois.

PAUL EDWARD YOUNG (1969), *Instructor in Education*  
B.S., 1968, Memphis State University.

KENNETH DAVIS YOUNT (1966), *Instructor in Music*  
B.M., 1964, Stetson University.

DANIEL LEONARD ZIEMBO (1965), *Instructor in Art*  
B.F.A., 1963, M.F.A., 1965, University of Illinois.

WILLIAM HENRY ZUBER, JR. (1966), *Assistant Professor of Chemistry*  
B.S., 1960, Memphis State University; Ph.D., 1964, University of Kentucky.

## THE UNIVERSITY COLLEGE

JOHN LASLEY DAMERON, Ph.D., *Acting Dean*

DONNA ROGERS BARTON, M.A., *Academic Adviser*

CAROL LEE BORNGESSER, M.Ed., *Academic Adviser*

DOROTHY G. DODSON, M.A., *Academic Adviser*

CHESTER J. DOLL, M.Ed., *Academic Adviser*

FRANK MARION DYER, JR., M.Ed., *Academic Adviser*

SUSAN PLUNK FINLEY, M.Ed., *Academic Adviser*

HERBERT RONALD GARNER, M.Ed., *Academic Adviser*

LILLIAN FISHER HAMMOND, M.Ed., *Academic Adviser*

ELIZABETH L. JULICH, M.Ed., *Academic Adviser*

CARL EUGENE MARSHALL, M.Ed., *Academic Adviser*

ALFRED E. McCLAIN, M.A., *Academic Adviser*

RACHEL JEAN MILES, M.A., *Academic Adviser*

JEANNE I. PANKHURST, M.Ed., *Academic Adviser*

BEVERLY G. SNIDER, M.Ed., *Academic Adviser*

RAYMOND WILSON WALKER, Ed.S., *Academic Adviser*

GUY J. WERTZ, M.Ed., *Academic Adviser*

## THE FACULTY COUNCIL

ASSOCIATE PROFESSOR MAURICE CROUSE, *Chairman*

ASSISTANT PROFESSOR KELL MITCHELL, JR., *Vice-Chairman*

PROFESSOR BINFORD PEEPLES, *Secretary*

*Members whose terms expire April, 1970:*

PROFESSORS DANLEY, GOVAN, HOUSE, HOWELL, AND ROBINSON

ASSOCIATE PROFESSOR DOWD

*Members whose terms expire April, 1971:*

PROFESSORS ORR, PHILLIPS, AND OSBORN

ASSOCIATE PROFESSORS CROUSE, DEBOO, AND ROANE

ASSISTANT PROFESSORS BROWN AND MITCHELL

*Members whose terms expire April, 1972:*

PROFESSORS PEEPLES, RIGGS, AND WADE

ASSOCIATE PROFESSORS COBB, GARLAND, WILSON, AND  
SCHOENFELD

## UNIVERSITY COMMITTEES

*Academic Discipline.* Professor James S. Matthews, chairman; Dr. Jess Parrish, secretary; Professor William R. Gillaspie; Associate Professors Weston T. Brooks and Helen Nunn; Assistant Professor Edward E. Hoskins; Mr. C. Lynn Haston, *ex officio*; Miss Autumn Gayle Carter and Mr. Jack Shannon, student representatives.

*Academic Freedom and Responsibility.* Professor Marcus Orr, chairman; Professors Elizabeth Phillips, Joseph Riggs, Richard B. O'Connell, and Charles Jens; Dr. Frank N. Philpot.

*Admissions and Records.* Dean R. P. Clark, chairman; Professors Alfred Smith and Marquita Irland; Associate Professors Omar Smith, George Dowd, and Herman Patterson; Assistant Professor William T. Segui.

*Athletic.* Mr. R. M. Robison, chairman; Professors R. J. Coltharp, Ford Haynes, Ralph Williams, and Walter E. Danley; Associate Professors John Corbet and Lasley Dameron; Mr. Lamar Newport; Mr. Paul McNabb, student representative.

*Buildings and Grounds.* Mr. Joe Walters, chairman; Mr. Bergen Merrill; Professors Marquita Irland and Calvin Street; Assistant Professor Neil A. Miller; Mr. Ray Herzog, *ex officio*; Mr. Robert F. Boensch, student representative.

*Continuing Education.* Dr. Frank N. Philpot, chairman; Deans Sam H. Johnson, Herbert J. Markle, Walter R. Smith, Roger E. Nolte; Dr. Roy S. Nicks; Mr. R. Eugene Smith.

*English Proficiency.* Assistant Professor Harry Cotham, chairman; Professors William R. Osborne and Ray House; Associate Professors Phil DeBoo and Charles L. Thompson; Assistant Professor William R. Williams.

*Financial Aids.* Professor Wayland Tanning, chairman; Associate Professors Gene G. James and Robert W. Deininger; Assistant Professor Lewis W. Godlove; Dean Flora Rawls; Dr. Jess Parrish; Mr. R. Eugene Smith; Mr. John Bannister, *ex officio*; Miss Margaret Elizabeth Bugbee, student representative.

*Health Science Professions Advisory.* Assistant Dean Victor Feisal, chairman; Professor Elmore Holmes; Associate Professors Paul R. Simonton, Harold R. Bancroft, and William Spell, Jr.; Assistant Professor Harry Cotham; Mr. Guy Wertz, *ex officio*.



*Library.* Professor Aaron Boom, chairman; Professor and Acting Librarian William Wicker; Professors Anthony R. Cariani, Kurt F. Flexner, Peter Bannon, Robert H. Marshall, and Lawrence Wynn; Associate Dean Devoy A. Ryan; Mr. Willie Lee Pernell, student representative.

*Pre-Law Advisory.* Professor Lonnie J. White, chairman; Professors L. W. Curbo and Robert D. Cox; Associate Professors Mary Sawyer and John Beifuss.

*Public Programs.* Dean Walter R. Smith, chairman; Dean Flora Rawls; Professors Keith Kennedy, Robert Snyder and Walter Wade; Associate Professors Lea G. Queener, Herbert A. Hermann, and Robert J. Prendeville; Mr. Harold Robbins; Dean David Collins, *ex officio*; Mr. Jack Shannon, president of ODK; Miss Margaret Spain, president of Tassel.

*Religious Activities Policy.* Professor Charles R. Spindler, chairman; Assistant Professors Nelle E. Moore and William C. Abbett; Dean David Collins; Colonel Jack Carter; Dean Ernest Davis; Mr. Jesse David Feldman, president of University Interfaith Council; Mr. Robb Henri Mitchell and Miss Teresa Ann Crawford, student representatives; representative of University Chaplains Council.

*Residency.* Dean R. P. Clark, chairman; Dean John Richardson; Mr. C. Lynn Haston; Associate Professor Lea G. Queener; Mr. Morris Bass.

*Social Discipline.* Dr. Jess Parrish, chairman; Professor Ralph Hatley; Associate Professor Charles S. Henderson; Assistant Professor Louise C. Chapman; Mr. C. Lynn Haston; Miss Sandy Sturdivant and Mr. Ester Lee Hurt, Jr., student representatives.

*Student Elections.* Dean David A. Collins, chairman; Dean Ernest Davis; Professor Thomas D. Shockley; Associate Professors Roy Williams and Robert E. Davis; Assistant Professor Charles Crawford; Mr. Jay Andersen.

*Student Publications.* Professor H. Lee Williams, chairman; Professors James T. Thompson, Elizabeth Phillips, Edward T. Browne, Jr., and Harry Edward Boyd; Dean David A. Collins; Mr. C. Lynn Haston; Mr. John Ridgway, president of Student Government Association.

*Teacher Education Policy.* Dean Sam H. Johnson, chairman; Professors Ford Haynes, E. F. Nothern, W. B. Barton, and Herbert G. Allbritten; Associate Professors Herman Patterson and Weston T. Brooks; Assistant Professor Melvin Humphreys; Mrs. Patricia Horton, *ex officio*.

*University Center Policy.* Dr. Jess Parrish, chairman; Professor Binford Peeples; Associate Professor Harry Mahood; Assistant Professor Sophia Brotherton; Mr. R. Eugene Smith; Mr. Jay Andersen; Dean David Collins, *ex officio*; Mr. John Ridgway, president of Student Government Association; Mr. Ron Joyner, president of University Center Program Board; Mr. Robert V. Grehan, Alumni representative; Miss Edna Lavern Griffin and Miss Lynda Carol Esslinger, student representatives; Sandra Jean Galltelli, Evening Division representative.

## CAMPUS SCHOOL FACULTY

- GRADY G. WOODY (1958), *Principal*  
B.S., 1951, Union University; M.S., 1958, Memphis State University.
- MARY ELIZABETH ANDERSON (1951), *Supervising Teacher, Third Grade*  
B.S., 1947, Memphis State University; M.A., 1951, George Peabody College.
- WEITA CARSON (1968), *Pre-School Teacher*  
B.S., 1955, Memphis State University.
- DOROTHY SIMMONS DAUGHERTY (1958), *Supervising Teacher, First Grade*  
B.S., 1952, M.A., 1956, Memphis State University.
- DONNA ELIZABETH EDDINS (1962), *Director of Kindergarten*  
B.S., 1962, M.A., 1963, Memphis State University.
- EVELYN MCKINSTRY FORD (1949), *Supervising Teacher, Fifth Grade*  
B.A., 1930, University of Mississippi; M.A., 1952, Memphis State University.
- SARAH LEE FOSTER (1955), *Supervising Teacher, Third Grade*  
B.S., 1952, University of Tennessee; M.A., 1957, Memphis State University.
- ELBA GANDY (1946), *Supervising Teacher, Music*  
B.M.E., 1944, Louisiana State University; M.M., 1946, Northwestern University.
- MILDRED MAY GRAGG (1949), *Supervising Teacher, Fifth Grade*  
B.S., 1941, Memphis State University; M.A., 1948, George Peabody College.
- JANE SHERMAN HARMAN (1968), *Supervising Teacher, Perceptually Handicapped*  
B.S., 1947, Madison College.
- ANN AUSBAND HARMON (1966), *Supervising Teacher, Art*  
B.A., 1953, Asbury College.
- FRANCES HICKS (1965), *Supervising Teacher, Fourth Grade*  
B.S., 1953, Oglethorpe College; M.S., 1956, University of Georgia.
- ANNETTA SUE HUCKABEE (1966), *Supervising Teacher, Perceptually Handicapped*  
B.S., 1963, M.A., 1964, Memphis State University.
- GEARY KRILL IRWIN (1959), *Supervising Teacher, Nursery School*  
B.A., 1945, University of California.
- FAYE J. LANE (1966), *Supervising Teacher, First Grade*  
B.A., 1949, Harding College; M.A., 1968, Memphis State University.
- GERLENE STUBBS LIFER (1956), *Supervising Teacher, Second Grade*  
B.S.Ed., 1955, M.A., 1958, Memphis State University.

- JOHN ETHEL MEASELLS (1946), *Librarian*  
B.S., 1931, Memphis State University; M.A., 1946, B.S. in L.S., 1951, George Peabody College.
- AGNES ANN MOORE (1957), *Supervising Teacher, Fifth Grade*  
B.S., 1954, M.A., 1957, Memphis State University.
- KITTIE DAVIS NOWLIN (1963), *Supervising Teacher, Fifth Grade*  
B.S., 1952, M.A., 1963, Memphis State University.
- FRANCES HOLMES PETERS (1955), *Supervising Teacher, Sixth Grade*  
B.S., 1942, M.A., 1957, Memphis State University.
- BEVERLY RICH (1968), *Pre-School Teacher*  
B.S., 1967, Memphis State University.
- BILLY E. SMITH (1964), *Supervising Teacher, Sixth Grade*  
B.S., 1949, University of Kentucky; M.A., 1958, Memphis State University.
- RUBY ETHEL SUGG (1966), *Supervising Teacher, Fourth Grade*  
B.S., 1941, M.Ed., 1958, Mississippi State University.
- WILMAH SCOTT TATOM (1962), *Supervising Teacher, Sixth Grade*  
M.S., 1960, Memphis State University.
- JULIA ETTA THOMAS (1947), *Supervising Teacher, Second Grade*  
B.S., 1947, Memphis State University; M.A., 1951, George Peabody College.
- LUCILLE WALLIS (1961), *Supervising Teacher, Second Grade*  
B.S., 1958, Memphis State University.
- VIVIAN WILSON WAYLAND (1968), *Supervising Teacher, Second Grade*  
B.S., 1968, Memphis State University.
- ELIZABETH SHELTON WILSON (1965), *Supervising Teacher, First Grade*  
B.S., 1966, M.A., 1969, Memphis State University.

*An expanding University campus (opposite page) features modern buildings and the newly-formed Mall in front of the Administration Building.*





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Description of the University

### Historical Statement.

In 1909 The General Assembly of Tennessee enacted a General Education law which provided for the establishment and maintenance of three normal schools, one school to be located in each of the three grand divisions of the state. Memphis and Shelby County contributed \$350,000 and a site of approximately 80 acres near the eastern edge of the city. On September 15, 1912, West Tennessee State Normal School opened.

In 1925, the institution became a senior college, and the name was changed to West Tennessee State Teachers College. In 1941 the school's liberal arts curriculum was enlarged, and the name was changed to Memphis State College. The undergraduate program was reorganized into three schools in 1951, and a graduate school was added. On July 1, 1957, by action of the Tennessee legislature, the institution was designated Memphis State University.

### Organization.

Memphis State University is comprised of four undergraduate colleges, The School of Law, The Graduate School, and The Division of Continuing Studies. The undergraduate colleges are The College of Arts and Sciences, The College of Business Administration, The College of Education, and The Herff College of Engineering. The Division of Continuing Studies administers The Summer Session, The Evening Division, The Extension Division, and the Downtown Division; it also offers non-credit courses designed to provide increased opportunities for the people of this area to avail themselves of University facilities and services. A University College was begun in 1968 to offer a program of academic advisement to freshmen and sophomores entering the University.

### Goals of the University.

Memphis State University offers an educational program compounded of those three elements traditionally associated with institutions of higher learning: teaching, research, and public service.

The primary purpose of the University is to provide experience through which students may attain a high degree of intellectual maturity, social stability, and professional competence. Through the variety of courses offered by the University, it is hoped the student's perspective will be so enlarged that the choices he makes in life will be cogent ones and that he will become a fully awakened and involved individual.

Research in many areas and on all levels is vital if our knowledge and comprehension are to be expanded. Because of the unexpected and invaluable results which have come from research undertaken without any immediate goal in view, the distinctions between pure research and applied research have become blurred. From the universities, the communities of scholars, each seeking truth in his own way, have come the most significant discoveries of our age. Memphis State University is constantly seeking to increase and improve its facilities in order to make available to its faculty and students the time, tools, and atmosphere necessary for the kinds of research which the citizens of the area have every right to expect.

Teaching and research are in themselves, of course, part of the public service which the University offers; but, in addition to these, the faculty, staff, and students make other valuable contributions to the public good. Both the physical facilities and the talents of the personnel are now utilized in many ways, and the University is always receptive to suggestions as to how the services may be expanded in order to be of added value to the citizens of the metropolitan area, the state, and the surrounding region.

### Accreditation.

Memphis State University is fully accredited by The Southern Association of Colleges and Secondary Schools and is a member of The Association of American Colleges, The Tennessee College Association, The American Association of Colleges for Teacher Education, and The American Council on Education. The College of Education is accredited by The National Council for Accreditation of Teacher Education. The School of Law is on the approved list of the American Bar Association. The American Association of University Women, of which the University is a corporate member, admits women graduates of the University to national membership. The University is also accredited by the National Association for Business Teacher Education, the official organization for accrediting institutions offering business teacher training. The Chemistry Department is on the approved list of the American Chemical Society. The Department of Nursing is approved by the Tennessee Board of Nursing.

### Governing Body.

The government of Memphis State University is vested in the Tennessee State Board of Education. The Governor is an *ex officio* member of this Board, and the Commissioner of Education is its chairman. The other twelve members of the Board are appointed by the Governor, four members from each of the three grand divi-



sions of the state. Offices of the Board are located in the Cordell Hull Building in Nashville.

The chief administrative officer of the University is the President. He is assisted and advised by members of the faculty and administrative staff organized into three official bodies: The Administrative Council, The Faculty Council, and The Graduate Council. Each college or school of the University is administered by a dean, each department by a chairman. Various activities are supervised by standing faculty committees.

### **Memphis State University Foundation.**

The Memphis State University Foundation, a private, non-profit general welfare corporation, was established in 1964 to promote and support the academic program of the University. It is administered by a Board of Trustees composed of eminent community leaders in business and industry, the President of the University, president and secretary of the Alumni Association, a member of the State Board of Education, three administrative officials of the University, two faculty members, and the chief officer of the Development Office, who automatically becomes the Foundation's executive vice president.

Contributions, gifts, and bequests are solicited by the Foundation for the advancement of Memphis State University as an institution of excellence. The funds of the Foundation are expended for student scholarships, departmental projects, research, visiting distinguished professors, faculty salary supplements, visiting lecturers, library and art acquisitions, and similar purposes. Contributions to the Foundation, a tax-exempt organization, are deductible for income tax purposes.

### *ACADEMIC BUILDINGS*

#### **Administration Building.**

Completed in 1912, this building was the first academic structure on campus. It has been enlarged and remodeled several times and is air-conditioned. It houses most of the administrative offices of the University and contains classroom and office space for several departments in The College of Arts and Sciences. The Computer Center is located in this building.

#### **Manning Hall.**

Built in 1930, and since extensively remodeled, this hall is named in honor of the University's first instructor in science, Priestly Hartwell Manning. It provides the Departments of Physics and Home Economics with classrooms, offices, laboratories, a science auditorium, and faculty and graduate research facilities.

### **Johnson Hall.**

Completed in 1958, this building honors Dr. Rayburn W. Johnson, Professor Emeritus of Geography, and his late wife, Ethel B. Johnson. Air-conditioned throughout, it contains classrooms, laboratories, offices, a map library, a conference room and an auditorium for the Department of Geography. The map library, a depository for the Army Map Service, Washington, D. C., contains over 10,000 maps. The Ethel B. Johnson Reception Room, dedicated to the use of the Faculty Wives Club, is on the ground floor.

### **Jones Hall.**

This hall, named in honor of Otis Henry Jones, University bursar from 1925-1937, was completed in 1960 and enlarged in 1964; it houses the Departments of Aerospace Studies, Art, Foreign Languages, and the University Post Office.

### **The College of Business Administration Building.**

An air-conditioned structure with adjoining auditorium, this building contains administrative offices, classrooms, laboratories, and offices for the Departments of Accountancy, Finance, Insurance and Real Estate, Economics, Management, Marketing, and Office Administration.

### **Industrial Technology Building.**

Constructed in 1941, and enlarged in 1946 and 1960, the Technology building provides classrooms, offices and laboratory facilities for drafting, surveying, woodworking, metal working, ceramics, and general shop practices. The University Printing Service is also located in this building.

### **Memphis State University Campus School.**

This school, operated in cooperation with the Memphis Board of Education, provides air-conditioned facilities for training student teachers and opportunities for observing good teaching procedures. In addition to regular classrooms, it features flexible spaces, learning cubicles, one-way observation glass, sound controls, connections for television broadcasts and reception, and facilities to meet the needs of modern public school teaching. These facilities are also utilized in faculty and graduate demonstration, research, and experimental projects.



### **The Field House.**

Built in 1951, and enlarged in 1958 and 1964, The Field House contains basketball courts, gymnasiums, classrooms, a stage, seats for 4,000 spectators, and offices for the Department of Health, Physical Education, and Recreation. Some athletic offices are located in this building.

### **The Buford Ellington Biological Sciences Building.**

Named in honor of the Governor of Tennessee, this air-conditioned building has classrooms, laboratories, specimen areas, research facilities, and an auditorium. It was completed in 1964.

### **The Ernest C. Ball Building.**

This air-conditioned structure, completed in 1964, houses the administrative and faculty offices of The College of Education as well as general and special classrooms, laboratory and research areas (including a curriculum laboratory), and an auditorium. Local offices of the State Board of Education, and the University of Tennessee graduate program are located in this building.

### **The Frank G. Clement Humanities Building.**

Named after the late Governor of Tennessee, this building is located on the west side of the Mall, was completed in 1966, and houses the Departments of Sociology and Anthropology, Philosophy, Political Science, and portions of the Department of History. The Department of Nursing is housed in this building.

### **The J. Millard Smith Chemistry Building.**

This building is named in honor of the President Emeritus of the University and is located on the east side of the Mall, adjacent to Walker Avenue. In addition to the Department of Chemistry, it also houses a portion of the Department of Mathematics.

### **The School of Law Building.**

Completed in early 1967, this air-conditioned facility is located on Central Avenue in the newly developed north campus area. It houses offices, classrooms, and service areas for the staff and students of The School of Law. The Law Library is also a part of this building.

### **The Malcolm R. Patterson Building.**

This building, completed in 1967, is the home of the Department of English. It is named in honor of former Governor Patterson, who was Tennessee's chief executive in 1909 when the University was founded. It is on the corner of Patterson and Walker.

### **Music Building.**

Facilities in this modern, air-conditioned building include a 450-seat recital hall-auditorium with a hydraulic lift orchestra pit, specially designed rehearsal rooms for band, chorus, opera and orchestra, a well-equipped music library, classrooms, practice rooms, staff offices, and Department of Music offices. The building is located on Central Avenue.

### **Speech and Drama Building.**

Also located on Central Avenue, next to the Music Building, this structure includes a large flexible theatre, two small experimental theatres, a speech clinic, a speech browsing library, a forensics suite, special listening rooms, classrooms, offices, and seminar rooms. Facilities are designed for the specialized use of speech and drama students.

### **Psychology Building.**

Located northeast of the Panhellenic Building, this structure features a large auditorium, one-way observance windows, animal experiment labs, and research and training clinic for child activity research.

### **Engineering Buildings.**

These two structures, located on Central at Normal at the northeastern edge of the Main Campus, house The Herff College of Engineering. The western building houses the library, offices, lecture hall, and student lounge, while the other building houses classrooms, laboratories, and faculty offices.

### **Physical Education Building.**

This complex, along Spottswood between Echles and Hughes on the southern border of the Main Campus, includes indoor and outdoor Olympic-size pools, two gymnasiums, handball courts, and other auxiliary dressing and exercise rooms.

### Meeman School of Communication.

This structure, named for the late editor of the *Memphis Press-Scimitar*, is a three-story building featuring a large auditorium and special journalism laboratories. It is north of the Industrial Technology Building and was partly financed by a \$250,000 grant from the Edward J. Meeman Foundation.

### The University Library.

The University Library, named in honor of former president John Willard Brister, was built in 1927; it has been considerably enlarged, the latest addition having been completed in 1963. The collection numbers over 270,000 volumes, including all U.S. Government publications since 1956. In 1966 the Library became a U.S. Government Depository. Subscriptions and files are maintained for general and specialized periodicals.

An undergraduate library is located south of the original library and is connected to form an integral part of a library complex. The new structure features a twelve-story stack tower.

## AUXILIARY BUILDINGS

### The Old Gymnasium.

In 1961 this building was converted into studio and office space for WKNO-TV, the educational television station operated by the Memphis Community Television Foundation.

### University Center.

Located on the east side of the Mall, this structure was opened in 1968. It houses the University Bookstore and, in addition, provides a variety of food-service, recreational, and conference facilities. The University Center is the center for conducting and promoting social, recreational, cultural, and educational activities for students, faculty, administration, alumni and their guests.

### University Auditorium.

This auditorium, located in the Administration Building, seats 1,200 and has a stage fully equipped for dramatic and musical productions.

### The Panhellenic Building.

Erected in 1959, and enlarged in 1963, this air-conditioned building affords suites for 10 sororities and hostess, guest room, kitchen, and ballroom.

### The Cafeteria.

This building adjoins the old Student Center and has a seating capacity of 500. It is air-conditioned and is located directly north of the Administration Building.

### Chucalissa Indian Village and Museum.

This prehistoric Indian town and museum is operated by the University as a research and training facility. Excavation of the site is underway by students and staff members. Adjoining acreage serves as a biological field station. Chucalissa also provides indoor and outdoor archaeological exhibits, open to the public throughout the year. Chucalissa is located 13 miles from the main campus west of Highway 61 South at Mitchell Road.

### MSU-UT Joint University Center.

The MSU-UT Joint University Center is housed in the Goodwyn Institute Building at 127 Madison Avenue. Late afternoon and evening classes are offered jointly by both Memphis State and the University of Tennessee for adult citizens of the downtown business community.

### Kennedy Property.

The University has acquired 129 acres of land, formerly the Kennedy Veterans' Hospital site at Park and Getwell. This land will be developed for University facilities and programs. Married student housing is located here.

### Meeman Forest Farm.

This 623-acre land gift to the University was made by the trustees of the Edward J. Meeman Foundation. The land will be used for biological studies. The late Mr. Meeman was for 31 years editor of the *Memphis Press-Scimitar*.

### Speech and Hearing Center.

Located at 807 Jefferson in the Medical Center of Memphis, this facility became affiliated with the University in 1967. It serves children and adults with speech and hearing defects. The University administers and operates the Center in cooperation with the board of Memphis Speech and Hearing Center, Inc.

### A. G. Hudson University Health Center.

A new, two-story Health Center Building, completed in 1969, offers emergency and first aid health services for University students and faculty. The Center is staffed by experienced physicians and nurses.

### Information Center.

This Center is designed to provide information to visitors, new students, and the University community. Located on Central Avenue on the corner of Patterson, the Information Center has parking for automobiles.

### Psychology Clinic.

Located on the first floor of the Psychology Building, this clinic offers both psychological evaluations and therapeutic services to children and adults. For appointments or information, telephone (901) 321-1147 or visit the Clinic.

### Scates Hall.

Most student personnel functions are centered in this building, including the Vice President for Student Affairs, the Deans of Student Activities, Men, Women, Student Relations, Housing, Counseling, Placement, and Student Aid.

## UNIVERSITY HOUSING

### Residence Halls.

There are four University-owned residence halls for women: Mynders Hall, West Hall, Nellie Angel Smith Hall, and Rawls Hall. There are four University-owned residence halls for men: Hayden Hall for graduate men, McCord Hall, Browning Hall, and Robison Hall for men attending the University on athletic scholarships.

In addition to these residence halls, Memphis State University operates the privately-owned Highland Towers and Central Towers. The Towers house men and women in air-conditioned suites. The Towers' cafeterias serve 20 meals per week (an alternate plan is also available for 15 meals per week), the cost of which is included in total charges for each semester.

*Art exhibits on the patio in front of Jones Hall (opposite page) offer examples of student work in the University's Department of Art.*



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# Admission to the University



## Admission to the University.

Inquiries about admission to any undergraduate college of the University should be addressed to the Dean of Admissions. The Admissions Office receives and processes all applications, evaluates credentials, and issues cards of admission to qualified applicants. Students may enter at the beginning of either of the regular semesters or at the beginning of either of the two terms of The Summer Session.

## Admission of Freshmen.

An applicant may qualify for admission as a freshman by meeting the following requirements:

### I. High School Graduation.

- A. By a transcript of credits showing graduation from an approved or accredited high school based on a four-year course of study. In addition to meeting all other requirements listed in this section, graduates of high schools outside Tennessee must rank in the upper one-half of their graduating class or reside within a 150-mile radius of the University to be eligible for admission. Exceptions may be made only if the student has above average entrance examination scores and there are other factors which indicate that the applicant will be capable of doing satisfactory academic work. Students who do not present one unit of American history are required by Tennessee law to register for the course upon initial enrollment.
- B. By High School Equivalency Diploma. Applicants 19 years of age or over may be admitted by the equivalency diploma, provided it is issued upon a minimum average GED test score of 45. Under special circumstances, non-veterans under 19 years of age may be considered for admission with a minimum average GED score of 45.
- C. By General Education Development tests. Veterans who are not high school graduates and who have at least 12 months of military service may be admitted by GED test scores averaging 45 or more.

II. Entrance Examination. In order to receive consideration for admission as a freshman, applicants must submit scores earned on the test administered by the American College Testing Program. Applicants who are not recent high school graduates may request an entrance examination administered by the Office of Admissions and Records.

III. Age. An applicant must be at least 16 years of age.

IV. Character. The applicant must submit evidence of good moral character (usually the recommendation of the high school principal). All applicants must have honorable dismissal from the last high school or college attended.

V. Health. Each candidate must be free from communicable diseases, must show evidence of vaccination for smallpox within the last five years, and must show a satisfactory chest X-ray or tuberculin skin test within the past six months. It is strongly recommended that all students be immunized against tetanus.

### Admission of Transfer Students as Regular Undergraduates.

Admission will be granted only to a student who has honorable dismissal from an accredited institution and whose cumulative quality point average meets the following minimum standards, on a scale in which a grade of A gives four quality points:

With two semesters in residence: a quality point average of 1.5000.

With four semesters in residence: a quality point average of 1.8000.

With six semesters in residence: a quality point average of 1.9000.

With more than six semesters in residence: a quality point average of 2.000.

(For part-time students, fifteen semester hours will be the equivalent of one semester.)

In order to receive consideration for admission as a transfer student, an applicant must submit scores earned on the American College Test or the Scholastic Aptitude Test, or an examination administered by the Office of Admissions and Records. The examination requirement may be waived for an applicant who meets the above minimum standards. (This work must have been completed in a program containing courses normally creditable toward a baccalaureate degree.)

A transfer applicant with less than two semesters in full-time residence (or less than 30 semester hours of part-time work) must meet the admission requirement of freshmen in addition to having a satisfactory college record.

A transfer student who is denied admission because he is not entitled to continue at another institution or because he does not meet the minimum quality point average requirement may have his application reconsidered after an appropriate period of time has elapsed. Transfer applicants originally denied admission for not meeting the minimum admission requirements must submit either SAT or ACT scores or take an examination administered by the Office of Admissions and Records.

A transfer student who is accepted for admission after an appropriate period of time has elapsed who does not have a quality point average of 1.5000 in his last term of enrollment, or whose cumulative quality point average does not meet the minimum standard, or who is not in good academic standing, will be entered on scholastic probation.

A transfer student who has failed his work at another insti-



tution and is not entitled to continue there will not be admitted to the University except under unusual circumstances.

Credit toward a degree will be accepted only for courses which are equivalent to those offered at Memphis State University. After the student has been approved for admission, the Dean of Admissions will evaluate the transcript of each transfer student to show the credits acceptable to the University. The dean of the college to which the student is admitted will inform the student of the extent to which his credits will apply toward the degree sought.

All credits are transferred at their original grade; if the quality point average on such transferred credits is less than C, the cumulative quality point average must be brought up to a C by higher grades at Memphis State University before the student can qualify for graduation. (See page 116 for the method of computing quality point averages.) Every student must qualify for graduation on the basis of every course attempted, at Memphis State University and elsewhere. In no case may transferred grades be used to raise the student's quality point average on courses taken at Memphis State University; his average on all courses must be C (2.000) or better.

A student submitting advanced standing credit from an unaccredited institution will be given consideration. Each case will be considered individually, and credit may be accepted tentatively. In no case will credit be recorded until it has been validated by satisfactory work at Memphis State University for one or more semesters.

A student transferring credits from a two-year collegiate institution must complete, as a requirement for the baccalaureate degree, a minimum of 60 semester hours in an accredited senior institution. Residency and other degree requirements of the degree-granting institution must be met.

Transfer credit from vocational schools or vocational colleges not accredited by the Tennessee State Board of Education and/or The Southern Association of Colleges and Secondary Schools (or corresponding agencies for other states and regions of the United States) will not be accepted toward a degree or toward teacher certification.

A student who has attended any accredited or approved institution of higher learning will not be permitted to enroll as a beginning freshman.

### **Admission of Transfer Students as Term Specials.**

A regularly enrolled student of another institution who desires to take only a limited number of hours during a term and who is not presently working toward a degree at Memphis State Univer-

sity may be admitted as a Term Special student, subject to the following provisions:

1. He must submit an application for admission and a five-dollar (\$5) application fee (unless the fee has been paid previously).
2. He must have the registrar of his college or university submit to the Dean of Admissions and Records a statement of good standing and his current classification. (Note: If the student later decides to become a permanent transfer student, transcripts of college and high school work and satisfactory entrance examination scores will have to be submitted.)

### Admission of Transfer Students as Special Undergraduates.

A graduate of an accredited institution who desires to take only a limited number of courses and who indicates that he is not presently working toward a degree at Memphis State University may be admitted as a Special Undergraduate, subject to the following provisions:

1. He must submit an application for admission and a five-dollar (\$5) application fee (unless the fee has been paid previously).
2. He must have the college or university from which he was graduated send to the Dean of Admissions a statement giving the name of the degree that he earned and the date he earned it. (Note: If the student later decides to become a permanent transfer student and works toward another degree, transcripts of all college and high school work will have to be submitted)

### Admission of Adult-Special Students.

A student who desires to take only a limited number of courses and who indicates that he is not presently working toward a degree at Memphis State University may be admitted as an Adult-Special, subject to the following provisions:

1. The applicant must hold a high school diploma or be 21 years of age or older.
2. He will be permitted to take no more than 9 semester hours per semester.
3. He will be allowed to enroll only in classes which meet after 4:00 p.m. or on Saturday.
4. He may not accumulate, in adult-special status, more than 18 semester hours of credit at Memphis State University. (After that time he must apply for regular classification if he is to continue to enroll).
5. He may at any time apply to the Dean of Admissions for reclassification as a regular student, effective at the beginning of the next regularly scheduled semester; he must follow the same procedures and meet the same standards as required for all other applicants for admission to the University. If he is admitted as a regular student, the credits which he earned as an adult-special student (up to a maximum of 18 semester hours) may be counted toward a baccalaureate degree if approved by the dean of the college from which the degree is sought.
6. A student who has been denied regular admission to Memphis State University because of low admission test scores may not apply for adult-special admission until at least 12 months after the previous application.



7. A student who has been dismissed, because of low academic standing from another institution of higher learning, may not apply for admission until at least 12 months after such dismissal.

### Procedures for Admission.

1. *Application.* A written application on a form supplied by the University is required. The application for admission form, which includes instructions for completing arrangements for entrance, must be secured from the Office of the Dean of Admissions, completed in ink or by typewriter, and returned to the Admissions Office. The completed form must include the applicant's social security number.
2. *Application Fee.* Applicants are required to submit with their initial application form a non-refundable fee of \$5.00.
3. *Credentials.* A student entering directly from high school should request his principal to mail to the Dean of Admissions an official transcript of his high school work. A student entering from another college or other colleges should request the registrar of each college attended to mail to the Dean of Admissions an official transcript of his college work. A transfer applicant must also have the Dean of Students at his last college attended complete a personnel evaluation form provided by the Office of Admissions and Records. *In every case credentials must include a complete record of all previous secondary schools and all collegiate institutions attended, regardless of credit earned, and regardless of whether or not credit is desired.* To prevent delay in completing registration, all credentials, including the completed application form, the official transcript, and the health service record, should be on file in the Office of the Dean of Admissions at Memphis State University before the beginning of the term for which application is made. The applicant is advised to have all credentials on file one month preceding registration in order to avoid delay in processing the application. All credentials become the property of the University and cannot be returned. Credentials are normally retained for seven years.
4. *Entrance Examinations.* Beginning freshmen who are recent high school graduates must take the examination administered through the American College Testing Program. Information about this examination may be obtained from the high school principal and/or guidance counselors. Applicants who will have been graduated from high school at least six months prior to their proposed date of entrance may make a request to take an examination administered by the University. Transfer applicants who meet the admission requirements outlined in the

section entitled *Admission of Transfer Students as Regular Undergraduates* do not have to submit entrance examination scores.

5. *Health Card.* Each student is required, as a condition of admission, to file with the Dean of Admissions a medical history and report of physical examination on the Health Service Record Card provided by the University.

### Former Students.

Former students who wish to return to the University must file a formal application for readmission; application forms, available from the Office of the Dean of Admissions, must be completed in ink or by typewriter and returned to the Dean of Admissions. If the student has enrolled at another college since last attending Memphis State University, he must have a transcript from the other college submitted and approved before he may re-enter. Applications will receive favorable consideration only if the applicant is eligible for readmission under all University regulations, including the grade-point average requirements shown on page 81.

### Credit for Service in Armed Forces.

Veterans who have completed one year or more of full-time, extended active military service will be excused from taking the required physical education activity courses and, in addition, will be allowed six semester hours (less credit already earned) of health and physical education credit upon presentation of a copy of their discharge form (DD form 214) to the Office of the Dean of Admissions. Reservists who have served six months active duty under the provisions of the Reserve Forces Act of 1955 are not considered veterans; they may, however, be excused from taking the required physical education activity courses upon the presentation of a copy of their discharge form (DD form 214) to the chairman of the Department of Health, Physical Education, and Recreation.

The Dean of Admissions and Records should be consulted to determine whether additional credit can be given for courses offered through the United States Armed Forces Institute or other service schools. An evaluation of service credit is not made until a student applies and has been granted admission as a regular undergraduate student.

*Patterson Hall (opposite page) is home of the Department of English, one of the largest departments in The College of Arts and Sciences.*

# Expenses and Financial Aid

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### Expenses at University.

The matter of expense while attending the University is of importance to every student. It is difficult, however, to give specific information about yearly expenditures; expenses vary according to the nature of the curriculum, the place of residence (whether in Tennessee or in another state or country), and the student's own habits and needs. In any student body there are so many different tastes, as well as such a wide range of financial resources, that each student must determine his budget in keeping with his own needs and financial condition. It is possible to live simply, and to participate moderately in the life of the student community, on a modest budget. The best help the University authorities can offer the student in planning his budget is to inform him of certain definite expense items and to acquaint him with others for which he will in all probability have to provide.

The information in this section concerning tuition, fees, deposits, financial aid, etc., is applicable only to students enrolled in the undergraduate colleges and departments of the University. Similar information for students in The Graduate School and The School of Law is available in the bulletins of those schools.

The listing of any fee or incidental charge in this catalog does not constitute a contract between the University and the student. Because of rapidly changing conditions it may become necessary to alter a fee structure before the next edition of the catalog is published. As a condition of registration each student will pay the fees in effect at the time he registers.

### Application Fee.

Each student submitting an application for admission to the University must pay, at the time he submits his application, a non-refundable fee of \$5.00.

### Maintenance Fee.

All students, whether resident or non-resident, pay a maintenance fee of \$13.00 per semester hour, not to exceed a maximum of \$132.50. Students paying the maximum fee are entitled to admission to home athletic events and certain health services, concerts, plays, social and other student-sponsored activities, and a subscription to *The Tiger Rag*, student newspaper. Part-time students may secure these services and activities by payment of an amount sufficient to bring fees to the maximum, such amount not to exceed \$15.00.

### Tuition.

No charge is made for tuition to bona fide residents of the State of Tennessee; non-residents are charged \$240.00 per semester (for



full-time students) or \$22.00 per semester hour (for part-time students).

The following policy is applied by the State Board of Education in classifying students as residents or non-residents for purpose of assessing tuition charges:

As a general rule the residence of a student is presumed to be that of his parents or guardians on the date of his enrollment at Memphis State University. "Residence" is interpreted to mean the state in which the parents or guardians are domiciled. "Guardian" is interpreted to mean a bona fide legal guardian appointed by the courts for purposes other than the establishment of residence for the purpose of avoiding payment of non-resident tuition. The residence of a married student (minor or adult) or the residence of an unmarried adult student shall be presumed to remain that of his parents or guardians unless he has independently established a residence of his own. The fact that such a student owns and dwells in his own home in Tennessee shall be sufficient evidence to classify him as a Tennessee resident.

The office of the Dean of Admissions and Records shall make the original decision concerning residence classification. The student may appeal this decision to the Committee on Residency; he may also petition this committee at a later date, if circumstances change, to reconsider his classification. Further information about residence classification may be obtained from the office of the Dean of Admissions and Records.

Fees for audits will be assessed on the same basis as fees for credit courses.

### **The Summer Session.**

The Summer Session consists of two separate terms of approximately six weeks each, plus a nine-week term for specified courses. In 1971 the first regular term will begin June 2 and the second term will be from July 13 to August 13. The nine-week term for specific courses will cover the period June 14 to August 19. Charges are assessed, however, not by the term but either (1) for the entire Summer Session or (2) on a semester hour basis. The charge for the entire Session (during which the student may take a maximum of fourteen semester hours) is \$132.50 to residents of Tennessee, \$372.50 to non-residents. The semester-hour charge is \$13.00 per semester hour to residents, \$35.00 per semester hour to non-residents.

Students who enroll for first-term courses only and pay fees by the hour may add a full load of courses for the second term on payment of an amount sufficient to bring fees to the maximum.

### **Courses in Applied Music.**

The fee for all private lessons in brasses, organ, percussion, piano, strings, woodwinds, and voice is \$50.00 per semester for one half hour per week. Those students who are majoring in music (those

currently registered for music theory) will pay only one \$50.00 fee per semester.

### Refunds of Fees.

Fall and spring semesters: If a student withdraws from the University within seven days after the beginning of classes for the fall and spring terms, a refund will be made of 80% of his maintenance fee and tuition or music fee (if any). Each week thereafter, the amount will be reduced 20%. The same refund schedule applies to students who drop to an hourly load below full-time. The applicable percentage then applies to the difference between the new fees calculated on an hourly basis and actual fees paid. *All other fees are non-refundable.*

Summer: Students are requested to register for all three terms of The Summer Session at the beginning of the first term, if possible. If a student withdraws from the University within three days after the beginning of classes for the first term, a refund is made of 80% of the maintenance fee and tuition or music fee (if any) applicable to first term classes. Each three school days thereafter, the amount of refund will be reduced by 20%. If a student withdraws from second term classes anytime before second term classes begin, a full refund of maintenance fee and tuition or music fee (if any) applicable to the second term will be made. This refund will be reduced to 80% if the student withdraws within three days after the beginning of classes for the second term and will be reduced an additional 20% each three days thereafter.

Withdrawals or drops from nine-week courses will be refunded on the basis of a 20% reduction each four days instead of three, as in the six-week term.

### Residence Halls.

Charges for rooms in University residence halls are indicated below. For information concerning application for rooms, see page 104.

	<i>Per Semester</i>	<i>Per Six-Week Summer Term</i>	<i>Per Nine-Week Summer Term</i>
*Rawls Hall (double room) .....	\$177.00	\$59.00	\$88.00
*Rawls Hall (single room) .....	\$199.00	\$66.00	\$99.00
*Robison Hall (double room) .....	\$160.00	\$53.00	\$79.00
*Robison Hall (single room) .....	\$182.00	\$61.00	\$91.00
Other (double room) .....	\$154.00	\$51.00	\$76.00
Other (single room) .....	\$177.00	\$59.00	\$88.00

(All rates include telephone (except Robison Hall) and post office box, but *not* long-distance telephone bills).

\*Air Conditioned.

	<i>Per Semester</i>	<i>Per Summer Term</i>
Central and Highland Towers (air conditioned and 20 meals, telephone, and post office box) .....	\$519.00	\$178.00
(air conditioned and 15 meals, telephone, and post office box) .....	\$484.00	Not available

No residence hall reservation request may be confirmed until the advance rental payment (\$40.00) and the deposit fee of \$25.00 are received in the University Housing Office. Students who intend for these payments to be covered by scholarship funds must write the University Housing Office to confirm this arrangement.

The following policy covering residence hall contracts, deposits, and rental fees shall be in effect beginning with the fall, 1968, semester:

1. All residence hall contracts are for the academic year and cover residency each succeeding year until cancellation or withdrawal from the University.

2. Each application for residence hall accommodations must be accompanied by a deposit of \$25.00. This deposit against damages shall remain on file with the University throughout the student's occupancy of housing facilities, and is refundable only under the following conditions:

A. When written request is received in the Housing Office prior to July 1 for the fall semester, December 1 for the spring semester, and May 1 for the summer term.

B. When a student is denied admittance or re-entry to the University.

Approved refunds will be reduced by the amount of any unpaid damages or any other financial obligation due the University at the time residence hall space is vacated.

3. Initial applications for residence hall accommodations in halls other than Highland or Central Towers must be accompanied by an advance rental payment of \$40.00 which will be applied to total rent at registration. (This is in addition to the \$25.00 deposit mentioned above.)

4. Students who wish to retain their rooms for subsequent semesters must make this advance payment by July 1 for the fall semester and by December 1 for the spring semester.

5. No prepayment of rent is required for the summer term.

6. Refunds of the \$40.00 advance rental payment will be made only when the following conditions exist:

A. The student is denied admittance or re-entry to the University.

B. The student is prevented from entering the University because of medical reasons, such reasons confirmed in writing by a licensed physician.

- C. The student is inducted into the armed services involuntarily. This does *not* include voluntary enlistment or the call to active duty by a student who voluntarily enters reserve duty.
  - D. Residence hall space is not available.
  - E. Reservations are cancelled prior to July 1 for the fall semester and December 1 for the spring semester.
7. Refunds of residence hall rent after classes begin will be prorated on a weekly calendar basis when the following conditions exist:
- A. The student is forced to withdraw from the residence hall because of medical reasons, such reasons being supported by a statement from a licensed physician.
  - B. Armed forces inductions as in item 6C above.

### Meals.

The University cafeterias, student centers, and vending areas, open to all students, provide wholesome food at reasonable prices. Cost of meals per student is estimated at \$3.25 per day.

### Air Force ROTC Deposit.

A uniform deposit of \$13.00 and a \$2.00 activity fee are required of each student who enrolls in the Air Force ROTC program. The uniform deposit, less charges for uniform loss or damage, will be refunded at the end of the academic year or at the beginning of a semester in which the student is not enrolled in the ROTC program.

### Laboratory Deposits.

Certain courses in chemistry require breakage deposits from \$7.50 to \$15.00 per semester, depending upon the course. Any unused portion of these deposits will be refunded.

### Physical Education Deposits.

Students enrolled in physical education courses must make a deposit of \$5.00 on the lock and towel issued them. This deposit, less a service charge of \$1.50 per semester, will be refunded upon return of the lock and towel.

### **Late Registration.**

Students who do not complete registration (including the payment of fees) during the official registration period will be charged \$5.00 for the first day after the official registration period and \$1.00 per day thereafter.

### **Adding and Dropping Courses.**

A charge of \$3.00 per course will be made for each course which is added or dropped after the student has completed registration.

### **Late Examinations.**

A student who is permitted to take a final examination at a date later than the one on which the examination was originally scheduled will be charged \$1.00 per examination.

### **Transcripts.**

One transcript of the student's academic record at Memphis State University is furnished free; a charge of \$1.00 is made for each additional copy requested. Transcripts are issued only at the request of the student or his authorized agent. No transcript will be provided for a student who has any financial indebtedness to the University.

### **Diploma Fee.**

Each candidate for a degree from Memphis State University pays a \$15.00 fee to cover cost of the diploma, rental of cap and gown, and incidentals connected with the commencement exercises. This fee must be paid thirty days before graduation.

### **Automobile Registration.**

Each person who expects to operate and park an automobile on the campus must pay \$3.00 for an official permit, valid from September through August, and register the automobile in the traffic office (Room 130, Administration Building). Proof of ownership must be presented when registering the automobile. Residence hall occupants should ask for a special decal when registering their automobiles.

### **Identification Cards.**

The University issues to each student an identification card, including his photograph, personal description, and certificate that he is enrolled as a student in the University. The card is required



for registration, the borrowing of library books, the cashing of personal checks, and other purposes. *The card remains the property of Memphis State University and will be surrendered upon request of a university official.* A charge of \$10.00 will be required to replace a card lost by a student.

### Bad Checks.

A \$2.00 service charge will be assessed for each bad check, whether given in payment of fees or cashed by the University for the personal convenience of the student. Check-cashing privileges will be revoked for any student who has checks returned by his bank more than once.

### Summary of Expenses.

*(This table is applicable only to students in the undergraduate colleges and departments; charges for The Graduate School and for The School of Law are detailed in the bulletins of those schools).*

#### Fall, Spring, and Summer Semesters

	Residents	Non-Residents
Per semester (full time student) .....	\$132.50	\$372.50
Per semester hour (part-time student) .....	\$ 13.00	\$ 35.00

#### Student Housing

	Per Semester	Per Six-Week Summer Term	Per Nine-Week Summer Term
*Rawls Hall (double room) .....	\$177.00	\$59.00	\$88.00
*Rawls Hall (single room) .....	\$199.00	\$66.00	\$99.00
*Robison Hall (double room) .....	\$160.00	\$53.00	\$79.00
*Robison Hall (single room) .....	\$182.00	\$61.00	\$91.00
Other (double room) .....	\$154.00	\$51.00	\$76.00
Other (single room) .....	\$177.00	\$59.00	\$88.00

(All rates include telephone (except Robison Hall) and post office box, but *not* long-distance telephone bills).

\*Air Conditioned.

	Per Semester	Per Summer Term
Central and Highland Towers (air conditioned and 20 meals, telephone, and post office box) .....	\$519.00	\$178.00
(air conditioned and 15 meals, telephone, and post office box) .....	\$484.00	Not available

#### Applied Music Courses

Private lessons in brasses, organ, percussion, piano, strings, woodwinds, and voice: \$50.00 per semester for one lesson per week

(Students currently enrolled for music theory will pay only one \$50.00 fee per semester.)

**Incidental Charges**

Adding courses	\$ 3.00 per course
Application for admission	5.00 per application
Automobile registration	3.00 per automobile
Diploma	15.00 payable once
Dropping courses	3.00 per course
Late examinations	1.00 per examination
Late registration	5.00 for first day after official registration period; \$1.00 per day thereafter
Transcripts	1.00 per copy after first copy
Air Force ROTC activity fee	2.00 per year
Audiovisual Lab (undergraduate)	5.00 per semester
Audiovisual Lab (graduate)	10.00 per semester

**Deposits**

Air Force ROTC Uniform	\$13.00 (refundable, less charges for loss or damage)
Dormitory rooms	\$25.00 (refundable, less charges, upon termination of occupancy)
Laboratory breakage	Variable (refundable less charges)
Physical Education Lock & Towel	\$ 5.00 (refundable less service charge of \$1.50 per semester plus loss or damage)

**Additional Charges**

The University reserves the right to increase the *charges* listed herein or to add new ones whenever such increases or additions are found to be necessary.

**Student Financial Aid.**

The University provides financial assistance to students from three basic sources: scholarships, loans, and employment. A single application filed with the University Student Aid Office will place the student in consideration for each program for which he is qualified.

Memphis State University student financial aid programs are administered in conjunction with a nationally established policy and philosophy of financial aids for education. The basis of this policy is the belief that parents are the primary and responsible resource for helping a student to meet educational costs, and that financial aids are available only for filling in the gap between the student's potential resources and expenses. To determine student need, the University utilizes the financial aid services of the American College Testing Program which takes into consideration certain factors relating to the family financial status. All applicants for financial aid must submit the Family Financial Statement to the American College Testing Program which in turn will report to the University its analysis of the student's need for financial assistance. These forms are available through high school guidance offices and from the University Student Aid Office.

Deadline for receiving applications for the fall semester is April 1. All inquiries should be addressed to the Director of Student Aid, unless some other procedure is specifically indicated in the following descriptions of scholarships and loans.

### Scholarships.

*University Scholarships.* The University annually awards some 500 State Board Scholarships to undergraduate students who have exceptionally good academic records and who are residents of Tennessee. These scholarships pay the annual maintenance fee required of residents of Tennessee. Recipients of these scholarships are required to assist a member of the faculty thirty hours each semester while receiving aid.

### *Special Scholarships.*

AFROTC FINANCIAL ASSISTANCE GRANTS are awarded annually by the United States Air Force to certain male students in the AFROTC Professional Officer Course; awarded on a competitive basis, these grants include tuition, books, fees, and \$50 per month for one, two, or three-year period.

THE AL CHYMIA SHRINE SCHOLARSHIP is awarded annually to an outstanding high school senior majoring in journalism. This scholarship is for the amount of registration fees during the freshman year only.

ALPHA DELTA KAPPA, ALPHA CHAPTER, annually awards a \$200 scholarship to a woman student in her junior or senior year who is a resident of Shelby County and is preparing to enter the field of teaching.

ALPHA DELTA KAPPA, LAMBDA CHAPTER, annually awards a \$125 scholarship to a woman student in her junior or senior year preparing to enter the field of teaching.

THE ALPHA XI DELTA MATHEMATICS SCHOLARSHIP of \$50 is awarded to the most outstanding junior woman majoring in mathematics.

THE R. C. ANDERSON SCHOLARSHIP FUND was established by the late R. C. Anderson, the interest from whose estate is to be used to provide scholarships for young men in their freshman and sophomore years who are residents from Benton, Decatur, or Henderson County.

THE DEPARTMENT OF ART annually awards a number of scholarships to students who demonstrate an ability in this area. Inquiries should be addressed to the chairman of the department.

BAND SCHOLARSHIPS, varying in amounts from \$50 to \$250, are awarded annually to University band students. Inquiries should be addressed to the Director of Bands.

THE CHROMIUM MINING AND SMELTING CORPORATION annually provides a \$500 scholarship to a worthy student.

THE CITY FINANCE COMPANY SCHOLARSHIP of \$250 is awarded annually to a student in The College of Business Administration.

THE MEMPHIS CHAPTER, FINANCIAL EXECUTIVES' INSTITUTE SCHOLARSHIP of \$250 is awarded annually to a second-semester junior student in The College of Business Administration. Ability, need, and an interest in controllership or financial management are important criteria.

THE FOREST HILL CEMETERY COMPANY SCHOLARSHIP is a four-year award of \$2,000 to an outstanding high school graduate of Memphis or Shelby County. The recipient is selected by a joint committee of the Forest Hill Cemetery Company and the University.

THE GENERAL UNIVERSITY SCHOLARSHIP FUND provides scholarships varying in amount and duration to outstanding high school graduates.

THE A. ARTHUR HALLE MEMORIAL SCHOLARSHIP FUND annually provides two scholarships of \$200 each to outstanding high school graduates for the freshman year only.

THE HIGHLAND-CENTRAL TOWERS SCHOLARSHIPS, provided by Allen & O'Hara, Inc., are awarded annually to a male and a female student. These scholarships of \$1,000 each are to be used toward meeting the expense for residence in the Highland and Central Towers dormitories.

THE ED HUMPHREYS SCHOLARSHIP FUND annually provides scholarships in varying amounts to outstanding high school graduates.

THE JOSEPHINE CIRCLE SCHOLARSHIP, in the amount of registration fees, is awarded annually. The award is made on the basis of scholastic record, personality, future plans of the applicant, and need.

THE LEO LEVY SCHOLARSHIP FUND annually provides scholarships in varying amounts to outstanding high school graduates.

THE JAMES E. MCGEEHEE MORTGAGE COMPANY SCHOLARSHIP was endowed in 1966 by the McGehee Mortgage Company with a \$10,000 donation. Interest from the investment of these funds is used to award an annual scholarship to an outstanding high school graduate.

THE P. H. MANNING SCHOLARSHIP FUND was established by the late Professor P. H. Manning, who left the bulk of his estate to be used by the State Board of Education to provide scholarships for young men students meeting certain conditions set forth in his will. The scholarships of \$100 each are given to young men from Carroll, Decatur, Gibson, and Henderson counties.

THE MIKE MCGEE MEMORIAL SCHOLARSHIP FUND, maintained by the Memphis Press Club, provides one or more scholarships of \$250 each year. These scholarships are awarded to journalism majors of any class with a minimum grade average of 2.7 upon approval of the Memphis Press Club scholarship committee.

THE MEMPHIS HIGH SCHOOL ALUMNI SCHOLARSHIP FUND provides an annual scholarship in the amount of \$250 to a graduate of a high school in the city of Memphis.

THE MEMPHIS HOUSEWARES CLUB annually provides a \$265 scholarship to a student in The College of Business Administration with a major in Sales.

THE MEMPHIS STATE UNIVERSITY SECRETARIES ASSOCIATION SCHOLARSHIP is a \$265 award to a freshman or sophomore girl who is a resident of Tennessee and who plans to major in office administration in The College of Business Administration or who plans to teach business and is enrolled in The College of Education.

THE MEMPHIS STATE UNIVERSITY ALUMNI ASSOCIATION SCHOLARSHIP FUND annually provides scholarships in the amount of \$500 each to outstanding high school graduates. At least one recipient is named from each of the alumni districts, and a number are awarded at large.

THE NATIONAL ASSOCIATION OF SALES EDUCATION annually provides a scholarship in the amount of \$300 to a student in The College of Business Administration majoring in Sales.



THE SERTOMA CLUB—ROBERT TALLEY JOURNALISM SCHOLARSHIP was established to honor a long-time member of the editorial staff of the *Memphis Commercial Appeal*. Each year the Sertoma Club of Memphis awards a scholarship valued up to \$350 to an advanced journalism student who has done outstanding work at Memphis State University. Applications should be submitted to the dean of The College of Arts and Sciences.

THE TENNESSEE BROADCASTERS ASSOCIATION SCHOLARSHIP of \$300 is awarded annually to an outstanding student majoring in Radio and Television.

THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS awards annually fourteen scholarships of \$250 each to accounting majors with good academic averages, enrolled in qualifying Tennessee colleges. The scholarships are awarded on a competitive basis in relation to scholarship, extra-curricular activity, character, and financial need.

THE UNITED DAUGHTERS OF THE CONFEDERACY BOOK SCHOLARSHIP is awarded annually to a student who is a descendant of a Confederate soldier. This award is for \$50.

THE HORACE H. WILLIS MEMORIAL SCHOLARSHIP of \$250 annually is awarded from time to time to an incoming freshman on the basis of need for financial assistance and evidence of academic promise.

THE WOMEN'S ASSOCIATION OF THE UNIVERSITY awards annually one semester's registration fees to a junior woman selected on the basis of outstanding academic achievement.

### **Educational Opportunity Grant Program.**

The Educational Opportunity Grant Program is a federally subsidized program whereby direct gift awards may be made to undergraduate students with exceptional financial need. Normally, Educational Grants are awarded as a part of a financial package since the amount a student may receive cannot exceed one-half his established need. Students applying for Educational Grants must demonstrate academic or creative promise; the stipend may range from \$200 to \$1000 based on the student's established need. All applicants for financial aid are automatically given consideration for this program.

### **Law Enforcement Educational Program.**

The Law Enforcement Education Program offers financial assistance to in-service and pre-service law enforcement personnel. This assistance is in the form of grants and loans. This program, established by the Omnibus Crime Control and Safe Streets Act of 1968, offers grants in the amount of tuition and fees and loans up to \$1800 per year.

### **National Defense Student Loan Program.**

The National Defense Education Act of 1958 provided funds to institutions for the purpose of making low interest, long-term educational loans available to students who demonstrate academic promise and who have a need for financial assistance. These loans bear no interest until nine months after a student graduates or interrupts his course of study; then the interest rate is three per



cent of the unpaid balance with a maximum repayment period of ten years. Repayment may be deferred up to three years while the borrower is serving in the Armed Forces, Peace Corp, or Vista.

Borrowers who teach full-time after graduation may apply for cancellation of ten per cent of the original loan for each full year of teaching service up to a maximum of five years. In some instances, persons teaching in school districts designated as low-income may receive an annual cancellation of fifteen per cent up to a maximum of seven years.

### **Nursing Student Loan and Scholarship Program.**

The Nursing Student Loan and Nursing Scholarship Programs assist students who need financial assistance to pursue a course of study leading to an associate or baccalaureate degree in nursing. These programs are designed to increase the opportunities for youth seeking careers in nursing by providing long-term, low interest loans and scholarships for students in need of financial assistance.

### **Loan Funds.**

The University maintains a number of small loan funds from which students may make low-interest, short-term loans. These loans are restricted to students who are currently enrolled in the University in good standing. A listing of these loan funds is as follows:

THE AMERICAN ASSOCIATION OF UNIVERSITY WOMEN LOAN FUND of \$200, administered by the Memphis branch of the AAUW, is available to women students recommended by the University.

THE AULL LOAN FUND of \$250, contributed by Mrs. Genevieve Aull, is to be used for loans to members of the senior class who have demonstrated their scholastic eligibility by one or more years of satisfactory work in residence.

THE JOHN WILLARD BRISTER LOAN FUND. On the occasion of the twenty-first birthday celebration of the University, the members of the faculty presented a fund of \$150 to be named in honor of the late President John Willard Brister.

THE CLASS OF 1933 LOAN FUND of \$102 was donated by the Class of 1933 as a class memorial.

THE GENERAL EVERETT R. COOK ARNOLD AIR SOCIETY LOAN FUND was established to provide financial assistance in the form of short-term loans for students enrolled in the Professional Officer Course of the Air Force Reserve Officers Training Corp.

DAUGHTERS OF THE AMERICAN REVOLUTION, FORT ASSUMPTION CHAPTER OF MEMPHIS, LOAN FUND of \$500 is available for loans to eligible students.

THE GENERAL UNIVERSITY LOAN FUND provides short term, low interest loans up to \$200 for those students who have an emergency or immediate need for funds.

THE DR. JENNINGS B. GEORGE LOAN FUND of \$1,000 was established in honor of Dr. Jennings B. George.

THE OWEN ROGERS HUGHES MEMORIAL LOAN FUND of \$100 is available for loans to eligible students.

THE KAPPA LAMBDA SIGMA<sup>2</sup> AND PHI LAMBDA DELTA LOAN FUND of \$206 was presented by the Kappa Lambda Sigma sorority and the Phi Lambda Delta fraternity in memory of those members of Phi Lambda Delta who died in World War II.

THE MARION CIRCLE LOAN FUND of \$100 is available for loans to eligible students.

THE MEMPHIS SALES EXECUTIVES—PI SIGMA EPSILON (KAPPA CHAPTER) LOAN FUND, provides emergency loans up to \$100 for upper-division students in The College of Business Administration. Maximum loan to any one student over a two-year period is \$200.

THE DELTA OMICRON CHAPTER OF PHI DELTA KAPPA sponsors a loan fund of \$500, available in \$125 loans to full-time undergraduate seniors and full-time graduate students who are planning to be teachers.

THE QUOTA CLUB LOAN FUND, administered by the Quota Club of Memphis, makes funds available to women students of junior or senior rank. Applications are to be submitted to Mrs. Ellen Davies Rodgers, chairman of the Education Committee of the Memphis Quota Club.

THE SHELBY COUNTY PARENT-TEACHER ASSOCIATION LOAN FUND of \$602.38 is available in varying amounts to eligible students.

TENNESSEE ASSOCIATION OF PUBLIC ACCOUNTANTS LOAN FUND was established to enable a needy junior or senior-year student in the Department of Accountancy to remain in the University. Loans are non-interest as long as student remains in the University.

THE UNITED STATES DAUGHTERS OF 1812 LOAN FUND of \$650, donated by the Old Hickory Chapter, USD of 1812, Memphis, consists of three awards: (1) the Mary Robinson Day Memorial Scholarship of \$250; (2) the Martha Moore Allen Scholarship of \$250; and (3) the Willis Hitzing Scholarship of \$125. All three of these awards are loan funds and may be awarded to a man or woman on recommendation of the faculty.

THE GENERAL RALPH H. WOOTEN LOAN FUND was established for the purpose of providing low-interest educational loans to students enrolled in the Air Force Reserve Officers Training Corp.

THE ZONTA CLUB OF MEMPHIS LOAN FUND of \$250 is available to eligible junior and senior women. Applications are to be made through the Dean of Women who will submit the names to a committee of the Zonta Club for approval and selection.

## Student Employment.

There are many employment opportunities available through the University. The University operates two programs of student employment on campus: the College Work-Study Program and the Regular Work Program. Students seeking employment should contact the University Student Employment Office in Scates Hall (Room 314) for work applications when they apply for entrance to the University; however, work applications are accepted year around. The Tennessee Employment Department maintains an office in Room 105 of the University Center for assisting students with off-campus employment.

## Other Financial Assistance.

*Tuition Financing Plans.* There are several reliable plans under which parents may make loans to help defray the cost of college expenses. These plans provide loans at nominal rates of interest which may be repaid in monthly installments. The University has approved two such plans for students. Parents interested in securing additional information about college financing of this type can obtain more information from either of the following:

College Aid Plan, Inc.  
1008 Elm Street  
Manchester, New Hampshire 03101

Education Funds, Inc.  
Howard Building — Box 4  
Providence, Rhode Island 02903

The Tennessee Educational Loan Corporation, in cooperation with the federal government, guarantees 100 per cent of loans made by Tennessee banks or other lending institutions to students from Tennessee who need to borrow money for their college education. This program enables lending institutions to provide long-term, low interest loans to students with a guarantee of receiving repayment. The federal government in many cases will pay the interest after the student leaves college. Applications may be obtained from participating lending institutions and from the University Student Aid Office.

## Awards.

THE COLLEGIATE CHAPTER OF THE AMERICAN MARKETING ASSOCIATION each year makes an award of a plaque to the outstanding senior majoring in marketing.

THE MEMPHIS CHAPTER OF ARCHITECTURAL WOODWORKERS offers cooperative employment opportunities for senior students majoring in drafting and design and in construction technology.

THE CHEMICAL RUBBER PUBLISHING COMPANY annually awards the *Handbook of Chemistry and Physics* to two freshman students selected by the faculties in chemistry and physics as outstanding in these fields of study.

THE PHI CHAPTER OF CHI BETA PHI, national honorary scientific fraternity, annually awards a plaque to the student who has attained the highest average grades during his four years of study in each of the disciplines of biology, chemistry, mathematics, and physics.

THE CITY PANHELLENIC ASSOCIATION makes an annual award to the sorority woman in the graduating class with the highest average.

DELTA SIGMA PI, international business fraternity, annually awards a scholarship key to the man in The College of Business Administration graduating with the highest scholastic average in business subjects.

THE DEPARTMENT OF ENGLISH offers an award to the English major whose work demonstrates an unusually high order of academic excellence. In identifying the recipient, a departmental committee reviews the credentials of

English majors who are graduating with honors, and the committee may select one whose work is clearly distinguished.

THE GOOCH FOUNDATION makes an annual award to the freshman holder of a Gooch Scholarship who has the highest scholastic average for the year.

PHI GAMMA NU, professional sorority in business, each year presents a scholarship key to the woman business graduate who has maintained the highest scholastic average in The College of Business Administration.

THE MEMPHIS CHAPTER OF THE SOCIETY OF CHARTERED PROPERTY CASUALTY UNDERWRITERS annually awards \$50 and a plaque to the outstanding student in the field of insurance. In considering recipients, the CPCU Chapter Awards Committee considers the student's scholarship and other University-related activities.

THE STUDENT GOVERNMENT ASSOCIATION of the University makes an award at each convocation to the man in the class who, graduating with honors, shows the highest scholastic attainment.

THE MEMPHIS CHAPTER OF THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS presents a plaque each year to the graduating student who has the highest overall scholastic average among all accountancy majors.

THE WALL STREET JOURNAL annually awards a plaque and a year's subscription to the *Journal* to the most outstanding graduate in the field of finance and one in economics.

THE WOMEN'S ASSOCIATION OF THE UNIVERSITY makes an award at each convocation to the woman member of the senior class who, graduating with honors, shows the highest scholastic attainment.

*Stage productions (opposite page) are one area of many University activities and organizations in which the student may participate.*

# Student Life and Activities

## 5





## Student Conduct and Disciplinary Proceedings.

It is assumed that applicants for admission to Memphis State University are ladies and gentlemen, and every consideration will be shown them as such until, by their own acts, they forfeit the confidence reposed in them. Rules of government and regulations in regard to general conduct are, of course, necessary. Whenever any number of people live together, each must forfeit some individual privileges for the general good. The rules and regulations at Memphis State University are of such nature as to secure ready cooperation on the part of students in making them effective. These rules and regulations are outlined in the Student Handbook, distributed to all students at the time of initial registration; each student is expected to keep this handbook and use it as a guide during his residence at Memphis State University.

## Student Housing.

The University operates six residence halls for men and six residence halls for women. Students wishing to live in residence halls should make applications at the earliest possible date. Application forms may be obtained from the Admissions Office or the Director of University Housing; completed applications should be submitted to the Director of Housing. For information concerning residence hall rents, and deposits, see page 90.

### *Housing Policy*

All unmarried undergraduate women who do not live with their parents or legal guardians are required to live in University approved housing. All single freshmen men, under the age of 21 and who do not reside with their parents or legal guardians, are required to live in University approved housing as long as space permits.

Any request for exceptions to housing policies for women must be made to the Dean of Women. Request for exceptions to housing policies for men must be made to the Director of Housing. A student should not assume his request has been approved until written acknowledgement has been received from the Dean of Women or the Director of Housing.

### *Assignments*

Assignments to the residence halls are made in order of completed applications and advance rental payments received for space (returning students have priority on upperclassman floors). Unless specific roommate requests are received, the University will make roommate assignments regardless of race, color, or creed. Although every effort is made to place students with compatible roommates, the University cannot guarantee compliance with every request.

### *Telephones*

Telephones are provided in each student's residence hall room (except Robison Hall). Charges for local service are included in residence hall rent. A Student Telephone Account Number (STAN) is issued each student upon entrance to the hall. Long distance calls are to be charged to this number. Long distance charges made to the actual telephone number will be prosecuted as fraudulent calls by the South Central Bell Telephone Company. Students having outstanding telephone charges at the close of the semester will not be readmitted to the hall until the charges are paid in full.

### *Closing Residence Halls*

Residence halls will be closed during the Christmas holidays, the spring holidays, and between semesters. All students are expected to make plans on their own for this period of time due to the fact that the halls will be closed.

### **Automobiles on Campus.**

Each person who expects to operate and park an automobile on the campus of Memphis State University must register it in the Security and Traffic Office and receive an official permit. Permits are valid from September through August. All students must show proof of title of vehicles upon registering automobiles with the Traffic and Security Office.

Limited parking space necessitates close regulation of traffic. Each student is responsible for acquainting himself with the campus traffic and parking regulations, copies of which are available in the Security and Traffic Office.

### **Health Service.**

A student Health Service, maintained by the University for all full-time students who have paid the maximum maintenance fee, provides services of physicians and registered nurses for minor treatment and consultation. The student is financially responsible for medical care beyond that offered by the Health Service and for hospitalization. The University Health Service does not cover the additional costs for special health care such as consultations with specialists, special nursing care, surgical operations, and dental treatment. In case of serious illness, the parents of the student are notified, and the student is admitted to a general hospital at his own expense.

### *Health Card*

Each student is required, as a condition of admission, to file with the University Health Center a medical history and report of physical examination on the Health Service Card provided by the University.

Graduate, special, or part-time students who expect to avail themselves of Health Center Service may do so by filing the usual Health Service Record Card with the Health Center after payment of Health Service fee. Except in cases of emergency, students not having a Health Card on file in the Health Center will not be treated.

Special sickness and accident insurance policies for students are available; they are particularly valuable to those students whose coverage under family policies has terminated. Policies are issued by a private agency, authorized and approved by the University. Details are available at registration.

### **Hospitalization.**

Emergencies which require hospitalization of residence hall students are often accompanied by confusion and dangerous delays while parents are notified in order to clear hospital admission for the student who is not covered by hospitalization insurance. For the welfare of the residence hall student and because the University can assume no financial responsibility for hospitalization, it is strongly recommended that each residence hall student be covered by a family policy or be enrolled in the Memphis State University Student Insurance Plan, which has University support and approval.

### **Counseling Service.**

The University Counseling Center, located in Scates Hall, provides personal and vocational counseling for University students. Those students who need advice concerning personal problems or their occupational choice can make contact with the Counseling Center by going to 208 Scates Hall and asking to see a counselor. Students may be referred to the Counseling Center by members of the faculty or administrative staff when a student's problem seems to merit the attention of a counselor trained specifically in the area of personal or vocational counseling.

### **Placement Services.**

The University Placement Service, located in Scates Hall, assists graduating seniors and graduate students in obtaining full-time, permanent employment. On-campus interviews are scheduled Octo-

ber through May. An active file of employment opportunities is maintained for students and for alumni who wish to change positions. Registration with the University Placement Service is a graduation requirement and should be completed two semesters prior to graduation. The office is open throughout the calendar year.

Teacher Placement, because of its specialized nature, is coordinated in the Office of Teacher Placement in The College of Education Building.

Part-time employment for undergraduate students is handled through a branch office of the Tennessee Department of Employment Security, located in Room 105 of the University Center. In cooperation with employers throughout metropolitan Memphis, this office attempts to place students in part-time employment which is in keeping with their ultimate employment goals. Part-time employment for freshmen is normally discouraged.

### **Bookstore.**

The University Bookstore, located in the University Center, is owned and operated by the University for the convenience of its students, faculty, staff, and their guests. In addition to textbooks and supplies required or recommended for every course in the University, the Bookstore also stocks clothing, cosmetics, notions, physical education uniforms, stationery, rental typewriters, and gift items; it is the only outlet for purchase of the official Memphis State University class ring.

### **Post Office.**

The University Post Office, located on the first floor of Jones Hall, has post office boxes available for rent by students and faculty. Students living in University housing have post office boxes located in these facilities, charges for which are included in the residence hall rent. Student mail should be addressed to the proper post office box number, Memphis State University, Memphis, Tennessee 38111.

### **Athletic Programs.**

The University sponsors a two-phase athletic program, intramural and intercollegiate. The intramural program is under the supervision of the Department of Health, Physical Education, and Recreation. Policies for intercollegiate athletics are set by the University Committee on Athletics.

The intramural program operates throughout the year and provides students with opportunities to compete in seasonal sports



either as individuals or as members of teams from the various student organizations. Individual competition is offered in tennis, shuffleboard, badminton, table tennis, archery, handball, golf, billiards, and football field events. Team participation is offered in softball, bowling, basketball, volleyball, and track. Recreational equipment may be borrowed from the recreational loan office.

The intercollegiate program sponsors teams in football, basketball, baseball, track, golf, tennis, and gymnastics. These teams compete in a regular schedule with teams from other recognized institutions of the same scholastic level as Memphis State University.

Athletic facilities on the campus include four gymnasiums, ten all-weather tennis courts, six handball courts, a football field, and a quarter-mile running track.

The Department of Health, Physical Education, and Recreation is closely associated with both the intramural and intercollegiate programs. Coaches serve as instructors in this department, and students utilize the three programs and facilities in preparation for careers in the fields of health, physical education, and recreation.

### Alumni Association.

The Memphis State University Alumni Association, with offices at 3815 Southern Avenue, maintains active contact with graduates for the mutual benefit of alumni and the University. Annual meetings of the association are held on campus each autumn as part of Homecoming. The Alumni Association publishes *The Columns*.

### Student Aid Office.

The University Student Financial Aid Office, located in Scates Hall, provides financial assistance for students in the form of scholarships and grants, loans and student employment. This office counsels with students about college expenses and financial aid opportunities. For detailed information on specific programs, refer to the section on Expenses and Financial Aid.

### Office of High School Relations.

The Office of High School Relations is responsible for the co-ordination of all high school visitations, as well as the dissemination of University publications to the high schools concerning admissions, financial aid, housing, and the various academic programs. Tours of the campus are scheduled daily and inquiries concerning a tour



should be directed to this office. An annual event conducted by the Office of High School Relations is the West Tennessee Principals and Guidance Counselors Conference.

The Office of High School Relations shares joint responsibility with The University College for Pre-College Counseling. This program is designed to acquaint students with various programs of study, general University regulations and registration procedures.

### Co-Curricular Activities.

A variety of co-curricular activities, under competent supervision and direction, is included in the University's program and furnishes valuable experience and training for students. Participation in co-curricular activities is a privilege extended only to students who are in good standing and who meet the particular requirements of the various organizations. Invitations to membership, when required, are extended by the individual organizations.

The following activities and services are provided free to full-time students: *The Tiger Rag*, *Phoenix*, *Student Handbook*, *DeSoto* (if student has picture made), intramurals, athletic events, and most cultural events on campus unless a reserved seat is desired.

No attempt is made in the following section to present an exhaustive or detailed account of all organizations and their activities. Full information is provided in the *Student Handbook*, distributed to all students at registration. Copies are available in the offices of the Dean of Student Activities.

**STUDENT GOVERNMENT.** The Student Government Association is composed of officers, a senate, a cabinet, and a judiciary elected annually by the student body. It exercises responsibility in those areas of student life delegated to it by the University and represents student opinion in working with the administration toward the good of the University.

**PUBLICATIONS.** Students write and edit *The Tiger Rag*, semi-weekly newspaper; *The DeSoto*, University yearbook; *The Phoenix*, the literary magazine; and the *Memphis Statesman*, a laboratory publication of the Department of Journalism.

**ART.** The Department of Art sponsors exhibitions of art works throughout the year. The galleries in Jones Hall and Brister library display the work of national and local talent in addition to faculty shows and the annual student exhibit. Lectures and films on art are also a part of the department's yearly program.

**MUSIC.** Qualified students, whatever their majors, may participate in the numerous musical groups organized and directed by the Department of Music, including the University Symphony Orchestra, the Music Education Orchestra, the University Bands (marching, concert, and stage), and a variety of choral groups and small instrumental ensembles. The department presents an extensive offering of concert recitals by faculty, students, and visiting artists. The Memphis State String Quartet and the Memphis State

Woodwind Quintet present an annual series of chamber music programs. The department also presents major opera and oratorio productions .

**SPEECH AND DRAMA.** Qualified students are invited to audition for roles in the plays produced each year by the Department of Speech and Drama. The department now produces six major productions during the academic year; in addition, it sponsors a Lunch Box Theatre, a student organized and operated experimental theatre; Readers Theatre, designed to present concert readings and programs of oral interpretation; original script programs; and the forensics program, affording students opportunities to participate in debate, extemporaneous speaking, oratory, after-dinner speaking, oral interpretation, and group discussions. From this latter group are chosen those students who represent the University in its extensive intercollegiate forensics program. The department has a major program in radio, television, and film, and other phases of broadcasting, as well as on-the-air announcing and performances. During the summer the department sponsors a program of plays, productions of original scripts, a Speech Institute for high school students, and a communications conference.

**THE GOODWYN INSTITUTE LECTURES.** The Goodwyn Institute, founded and endowed by William A. Goodwyn, philanthropist and former citizen of Memphis, provides a series of free lectures and addresses covering a wide variety of subjects. The aim of the Institute is to offer to the citizens of Memphis and the students of the University authoritative and accurate information on all kinds of practical and cultural subjects. Public forums frequently follow the lectures, all of which are held in the University Auditorium. Admission is free, and reserved seat tickets may be obtained in the office of the Director of the Goodwyn Institute.

**RELIGIOUS ACTIVITIES.** Religious activities of the campus are under the guidance of the Coordinator of Religious Affairs with policy direction being given by a standing committee of the faculty. Students originate activities through an inter-faith religious council which functions in cooperation with the Student Government Association. Several religious bodies maintain meeting facilities adjacent to the campus, each supervised by its own staff; these groups provide activities adapted to the needs of the University community and designed to aid in the continuing religious growth and development of faculty and students. The organized religious groups include the Baptist Student Union, Barth Episcopal Student Organization, Campus Crusade for Christ, Chi Alpha, Christian Science Organization, Disciples Student Fellowship, Hillel, Koinonia Club, Newman Foundation, Wesley Foundation, Westminster Fellowship, and Wittenberg Society. The Inter-faith Council plans lectures and activities (including a traditional Christmas ceremony) at appropriate times during the year.

**SCHOLARSHIP, LEADERSHIP, AND PROFESSIONAL ORGANIZATIONS.** Many national honorary societies, devoted to encouraging high standards of scholarship, leadership, and professional competence, maintain active chapters on the campus. In addition, most departments and subject-matter areas sponsor local clubs to provide majors and other interested students with experiences and activities not always available in the classroom. Organizations petitioning for membership in a national society maintain all standards required for affiliates. Local organizations operate under charters issued by the Student Government Association; revocation of a charter entails loss of University recognition and sanction. Detailed information concerning these organizations, including requirements for membership, purposes, and specific activities, will be found in the Student Handbook and from sponsoring departments.

**SOCIAL FRATERNITIES AND SORORITIES.** Fourteen national fraternities maintain chapters at the University: Acacia, Alpha Epsilon Pi, Alpha Tau Omega, Zeta Beta Tau, Kappa Alpha, Kappa Sigma, Lambda Chi Alpha, Phi Kappa

Theta, Phi Sigma Kappa, Pi Kappa Alpha, Pi Kappa Phi, Sigma Alpha Epsilon, Sigma Chi and Sigma Phi Epsilon. Most chapters own houses off the campus and offer limited rooming facilities to upperclassmen. Student supervision and coordination of their activities are provided through the Interfraternity Council. Two colonies are petitioning for national recognition: Phi Beta Sigma, and Phi Kappa Psi.

Fifteen national sororities maintain chapters at the University: Alpha Delta Pi, Alpha Gamma Delta, Alpha Kappa Alpha, Alpha Phi, Alpha Xi Delta, Delta Gamma, Delta Sigma Theta, Delta Zeta, Gamma Phi Beta, Phi Mu, Pi Beta Phi, Sigma Delta Tau, Sigma Gamma Rho, Sigma Kappa, and Zeta Phi Beta. Most have suites in the Panhellenic Building. Student supervision and coordination of activities are provided through the Panhellenic Council.

University coordination of fraternity activities is provided through the office of the Dean of Student Activities and supervision of sorority activities is provided through the Office of the Dean of Women.

*The School of Law (opposite page) is located on Central Avenue in the University's newly-developed north campus area.*

# Academic Regulations 6





## The Academic Year.

The academic year begins in September and covers a period of forty-eight weeks divided into two semesters and a summer session. Each semester is approximately eighteen weeks in length, and The Summer Session is divided into two terms of from five to six weeks each. Students may enter at the beginning of either of the regular semesters or at the beginning of either of the two terms of The Summer Session.

## Orientation, Counseling, and Registration.

An orientation and academic advising program for all new freshmen is held during the summer preceding fall registration. The sessions are conducted by the Student Personnel Division and The University College in order to acquaint entering students with various programs of study, general University regulations, and registration procedures. Students are assigned advisers who aid them in selecting appropriate courses. *Assistance from the adviser, however, does not relieve the student of the responsibility of studying the catalog himself and fulfilling all of the requirements therein for his particular goal.* It is expected that a student who has attained senior standing will consult with the dean of his college in regard to the fulfilling of requirements for his chosen degree.

The Schedule of Classes, published a few weeks before the beginning of each semester and available from the office of the Dean of Admissions and Records, contains a detailed outline of the registration procedure. Students are urged to study these schedules carefully and to keep them available for immediate reference during the registration period and throughout the semester. All students are expected to register on the dates indicated in the calendar; although registration is permitted after these dates, a late registration fee is charged, and there is no reduction in other fees.

In no case is credit allowed in any course for which the student is not duly registered; and all courses for which the student is registered are recorded as passed (with a letter grade), failed, incomplete, withdrew, or dropped. No student will be granted credit for a course which is not properly entered on his official registration card. Registration is not complete until all fees for the semester have been paid.

## Classification of Students.

Students having 25 semester hours of credit and two semesters of residence are classified as sophomores; students having 55 semester hours of credit and four semesters of residence are classified as juniors; students having 85 semester hours of credit and six semesters of residence are classified as seniors.

*Special students.* Only those students who hold baccalaureate degrees and who are registered in courses for undergraduate credit may be classified as special students. All others, whether full- or part-time, are classified as freshmen, sophomores, juniors, seniors, or graduate students.

*Adult-Special Students.* For information concerning admission as an adult-special student see page 83.

Students who have completed the required number of hours and the required residence to be classified as juniors but who have not completed their basic requirements in the Lower Division must schedule these uncompleted requirements during the first semester following in which such courses are available.

### Credit Hours and Maximum Load.

The unit of credit at Memphis State University is the semester hour; a semester hour is defined as the credit earned for the successful completion of one hour per week in class for one semester; or two hours per week of laboratory for one semester. (A course which gives three semester hours credit will normally meet for three lecture or recitation hours per week; or for two lecture or recitation hours and two laboratory hours per week; or for some other combination of these.) Each lecture hour presupposes a minimum of two hours preparation on the part of the student.

The minimum number of semester hours per semester for classification as a full-time student is twelve. The maximum number of semester hours for a student with less than a B average (3.0) is eighteen (not including the required physical education activity course). A student who has a B average for a semester may, with the permission of the dean of his college, schedule a maximum of twenty-one hours for the following semester.

For each term of The Summer Session, four semester hours is the minimum load for classification as a full-time student; six semester hours is the average load; seven semester hours is the maximum. No student may schedule more than a total of fourteen semester hours in the two terms of The Summer Session.

Students who have part-time employment, either on or off the campus, are strongly urged not to register for a full academic load.

### Grades and Quality Points.

*Grades.* At the end of each semester or summer term, instructors report to the Records Office the standing of all students in their classes. The grade of a student in any course is determined by his class standing and his examination, combined in such proportion

as the instructor in charge of the course may decide. Class standing in any course is determined by the quality of the student's work, the regularity of his attendance, and the thoroughness of his preparation. The instructor's evaluation of the student's work is expressed by letters, which have values, on a scale of 100, as follows:

A, excellent (95-100)	I, incomplete
B, good (85-94)	DW, if a course is dropped
C, satisfactory (75-84)	W, withdrew from the University
D, poor (65-74)	AD, Audit
F, failure (64 or below)	

The grade of I (incomplete) indicates that the student has not completed the course for some unavoidable reason that is acceptable to his instructor. Unless the student completes the requirements for removal of the "I" within forty-five days from the end of the semester or summer term in which it was received, the grade of "I" will be changed to an F, regardless of whether the student is enrolled or not. Extensions may be granted if the instructor's absence from the campus makes it impossible for the student to remove the incomplete.

All grades, with the exception of I, when once reported, can be changed only by the instructor who reported them and then only after approval by the faculty Committee on Entrance and Credits.

A student has the privilege of repeating a course in an attempt to improve the grade previously made. The grade he makes the last time the course is taken is the grade that will be considered as the final grade. A student may not attempt the same course more than three times for the purpose of obtaining a passing grade or a higher grade.

All courses for which the student is registered are recorded as passed (with a letter grade), failed, dropped, withdrew, or incomplete. In no case is credit allowed in any course for which the student is not duly registered. No student will be granted credit for a course which is not properly entered on his official registration card.

*Quality Points.* For the purpose of computing averages, grades are converted to quality points. Each grade of A counts 4 quality points per semester hour; B, 3 quality points; C, 2 quality points; D, 1 quality point; F, DW, and W, no quality points.

In computing a student's scholarship ratio, or quality point average, all courses attempted are included. As an example: a student carrying five three-semester-hour courses for a total of 15 semester hours makes the following grades: A, B, C, C, F; he has

thus accumulated quality points in the amount of 12, 9, 6, 6, 0, for a total of 33. In computing his quality point average, the number of hours attempted (15) is divided into the quality points earned (33) for an average of 2.2.

### Class Attendance.

Students at Memphis State University are expected to give their scholastic obligations first consideration. Prompt and regular class attendance is considered necessary for satisfactory work. It is expected that a student will regard an engagement to attend classes as he would any other engagement or conference with an instructor. All reasons for absence should be submitted as soon as possible to the instructor. The satisfactory explanation of absences does not in any sense relieve the student from responsibility for the work of his course during his absence. The instructor in charge of a course determines in all instances the extent to which absences and tardiness affect the student's grade. Absences are counted from the first scheduled meeting of the course.

Absence from the final examination without the permission of the instructor incurs a mark of F.

### Correspondence or Extension Credit.

Memphis State University accepts a limited number of credits earned by correspondence and/or extension, provided that such credits are taken from an institution which is a member of the University Extension Association, The Teachers College Extension Association, or the appropriate regional accrediting association. Memphis State University offers some work by extension but none by correspondence.

Prior to a student's initial registration at Memphis State University as a regular undergraduate (for official definition of "regular undergraduate," see page 81), the Office of the Dean of Admissions and Records will, at the time the student applies for admission, determine the acceptability of extension and/or correspondence credits earned at other institutions. After the student has been admitted as a regular undergraduate, whether he is a beginning freshman or a transfer student, he will not be given credit applicable to any Memphis State University degree for subsequent correspondence or extension courses unless he has obtained, *prior to his enrollment in such courses*, written permission from the dean of the college in which he is majoring.

No student is permitted to enroll for correspondence or extension courses while he is carrying a maximum load at Memphis State University.



Not more than one-fourth of the semester hours applied on the bachelor's degree may be earned by correspondence or extension or a combination of the two.

A student who has completed the two semesters of required residence in his junior and senior years and who lacks *no more* than four semester hours toward completion of degree requirements may earn these additional credits by acceptable correspondence or extension work, or by residence at another approved institution. (For details of residence requirements, see page 126.)

### Advanced Placement Credit.

Memphis State University participates in the Advanced Placement Program of the College Entrance Examination Board. A maximum of twelve semester hours may be given to qualified students on the basis of the examinations conducted by the Board. To be eligible for credit, an entering freshman must place in group three, four, or five of the CEEB Advanced Placement Tests.

### Credit by Examination.

Examinations for credit in courses offered by the University may, under special circumstances, be offered to students who believe they have already mastered the material of the course through private study, technical employment, or the like. The following regulations govern the granting of credit by examination:

1. Any enrolled student—full-time, part-time, or extension—who is in good academic standing may make application to take an examination for credit in any course in the undergraduate curricula. He should, of course, be certain that he has at least the minimal preparation and background required before he attempts any examination. Examinations may not be given to students in sequential courses numbered lower than those the student has already completed.
2. Permission to take a credit examination must be obtained from the chairman of the department in which credit is sought and from the dean of the college in which the student is registered. When permission is granted and after the payment of the cost of the examination, the Dean of Admissions will issue an official permit for the examination.
3. The form of the examination and the method of administering it are left to the discretion of colleges and departments. In no case will credit examinations be administered while the University is not in session.
4. Students may earn as much as 30 semester hours through credit examination, with no more than 12 semester hours in one area.
5. Credit examinations are indicated on the student's record as P. To pass a credit examination, the student must make a grade equivalent of at least a C in the course.



### Audit Courses.

Students who are registered for one or more classes at Memphis State University may also register to audit a course with the approval of their adviser and the chairman of the department in which the course will be offered. Auditors are not required to prepare lessons or papers, or take examinations. They are not to take part in class discussions or laboratory or field work.

Persons who are not enrolled for credit courses may register for audit courses with the approval of the Dean of Admissions and Records and the department chairman.

Students enrolled for credit courses may take no more than one audit course per semester. Persons who are not enrolled for credit courses may register for a maximum of three courses with the approval of the department chairmen.

Fees for audits will be assessed on the same basis as fees for credit courses.

### Credit-No Credit Courses.

Any student who has earned at least sixty semester hours with a minimum grade point average of 3.0 may elect to enroll for courses outside his major and minor areas on a credit-no credit basis. The student is limited to one course per semester and may not accumulate more than twelve semester hours on a credit-no credit basis.

After a student has registered on a credit-no credit basis, he may not change this course registration to reflect a letter grade and quality points. The student's adviser should be contacted for permission to take a course on a credit-no credit basis.

### Adding and Dropping Courses.

After the official registration period is over, the student may make adjustments in his schedule through the process of adding and/or dropping courses. Courses may be added only during the first five days of classes (three days in The Summer Session ). Courses may be dropped only during the first three weeks of classes (five days in The Summer Session). Exact dates of termination are carried in the University Calendar.

A course may be added or dropped only by permission of the student's adviser and the dean of the college in which the student is registered. A fee of \$3.00 is charged for each course added or dropped. Dropping a course without permission incurs the grade of F.

### Withdrawal from University.

Any student who wishes to officially withdraw from the University must do so in person through the office of the Dean of Women for female students and the office of the Dean of Men for male students. The student must complete an application for withdrawal and turn in his student identification card at the time of withdrawal. Failure to officially withdraw will result in the student receiving grades of F for the courses in which he is enrolled. Students enrolled in The Evening Division should report their withdrawals to the office of the Director of The Division of Continuing Studies. Students enrolled in The Graduate School should report their withdrawals to the office of the Dean of The Graduate School.

Withdrawal from the fall semester is not permitted after November 30; withdrawal from the spring semester is not permitted after April 30. Withdrawal from either term of The Summer Session is not permitted within four class days of final examinations.

Any student who withdraws after the termination of the period during which courses may be dropped (see above, Adding and Dropping Courses) will have all courses not previously dropped recorded as W.

### Scholastic Standards.

*The Dean's List.* The Dean's List is composed of those students who complete a minimum of fifteen semester hours with a grade point average of at least 3.4.

*Graduation.* A minimum of 2.0 grade point average on all work attempted is required for graduation.

### Academic Status and Retention.

At Memphis State University, the academic status of a student is denoted by one of four conditions:

- (1) GOOD STANDING
- (2) ACADEMIC DEFICIENCY
- (3) ACADEMIC PROBATION
- (4) ACADEMIC SUSPENSION

Policies and procedures related to the awarding of these conditions are outlined in the following comments.

*Good Standing.* A student is in GOOD STANDING so long as the number of grade points earned is equal to twice the number of cumulative hours attempted. This is equivalent to a 2.00 average.

*Academic Deficiency.* The status of ACADEMIC DEFICIENCY signals that a student has a cumulative grade point average

of less than 2.00 but that his grade point deficiency is not sufficiently large enough to warrant his being placed on academic probation as defined in this policy statement.

*Academic Probation.* A student will be placed on ACADEMIC PROBATION at the completion of any regular semester or summer session when twice the total cumulative hours *attempted* exceeds the total quality points *earned* by 18. There is one exception to this policy. A student will not be evaluated for academic probation until he has attempted at least 12 semester hours. A student may clear his academic probation by reducing his grade point deficiency to 18 or less by residence work taken at Memphis State University.

*Academic Suspension.* A student on academic probation who during his next term of enrollment fails to reduce his grade point deficiency to 18 or less will be placed on ACADEMIC SUSPENSION for not less than one regular semester or summer session. There is one exception to this policy. A student on academic probation will not be placed on academic suspension at the end of any semester or summer session during which he earns twice as many grade points as hours attempted for that term. This is equivalent to a term average of 2.0.

Following his second academic suspension, a student will be readmitted only on special approval by the Office of Readmission on the basis of adequate evidence of ability, maturity, and motivation; this student must be out of Memphis State University one calendar year before his application for readmission will be *considered*.

### Notification of Academic Status.

Official notification of academic status is by means of the grade report processed to each student at the end of the regular semester or summer session. The academic status will be stated at the end of the report of grades according to one of the four conditions given previously.

*Graduates of the University receive degrees at three yearly commencement programs. The University now offers the Doctor of Philosophy and the Doctor of Education degrees.*



Graduation from the University

7



## Degrees Offered.

The degrees conferred by Memphis State University are offered through The College of Arts and Sciences, The College of Business Administration, The College of Education, The Herff College of Engineering, The School of Law, and The Graduate School, as follows:

The College of Arts and Sciences: *Bachelor of Arts, Bachelor of Science, Bachelor of Science in Chemistry, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science in Medical Technology.*

The College of Business Administration: *Bachelor of Business Administration.*

The College of Education: *Bachelor of Science in Education.*

The Herff College of Engineering: *Bachelor of Science in Civil Engineering, Bachelor of Science in Electrical Engineering, Bachelor of Science in Mechanical Engineering, Bachelor of Science in Technology and Bachelor of Science (major in Geology).*

The Graduate School: *Doctor of Philosophy, Doctor of Education, Master of Arts, Master of Science, Master of Business Administration, Master of Science Teaching.*

The School of Law: *Juris Doctor.*

The Department of Nursing: *Associate of Arts in Nursing.*

Courses required for all baccalaureate degrees are outlined in the section which follows; specific requirements for the individual degrees will be found in the sections of the catalog devoted to a description of the undergraduate colleges. Requirements for the Juris Doctor degree will be found in the Bulletin of The School of Law; requirements for graduate degrees will be found in The Bulletin of The Graduate School.

## General Requirements.

The following requirements have been established by the University for all undergraduate degrees offered. In addition, the student must meet the requirements for his specific degree as established by the college or department in which it is offered.

1. *English.* All students must complete successfully English 1101, 1102, 2101, 2102, or their equivalent. They are to be taken consecutively through the freshman and sophomore years, or until completed. No credit will be allowed on any course until all the preceding courses are completed. These courses may not be dropped from the student's schedule except under very special conditions.

2. *History.* All students must complete successfully History 2601 and 2602, or their equivalent. These courses are not open to students who have earned less than 25 semester hours credit.

3. *Science.* All students must complete successfully one year in a natural or physical science; this requirement must be met with a two-semester sequence course in one science (biology, chemistry, geology, mathematics, or physics) or Geography and Geology 1101.

4. *Physical Education.* Four semesters of physical education activity courses are required of all students during the first four semesters in the University, except those who complete two years of Air Force ROTC of whom only two semesters of physical education are required. A student may take only one physical education activity per semester unless he is a physical education major or minor or a recreation major. All students (except Physical Education majors and minors and Recreation majors) are required to take Physical Education 1001 for one or two semesters; they may then complete their requirements by selecting activity courses numbered 1111 or above. No student other than a physical education major or minor or a recreation major may apply more than four semester hours of basic physical education to the minimum degree requirements of 132 semester hours. A student unable for medical or other reasons to take regular physical education is required to register for an adaptive class, or otherwise follow recommendations of the office of Health Services.

If the Memphis State University evaluation of the record of a transfer student shows no credit for or participation in physical activity courses, he must complete activity courses according to the following schedule:

With 1 through 12 semester hours of credit, four activity courses.

With 13 through 24 semester hours of credit, three activity courses.

With 25 through 39 semester hours of credit, two activity courses.

With 40 through 54 semester hours of credit, one activity course.

With 55 or more semester hours of credit, a student is not required to take physical education courses at Memphis State University. If the Memphis State University evaluation of the record of a transfer student shows credit for or participation in physical education, he must either (1) take physical education activity courses at Memphis State University to bring the total to four semesters (two semesters with four semesters of ROTC) or (2) complete requirements according to the above schedule, whichever is the smaller.

5. *English Proficiency.* Every student who enters Memphis State University on or after September 1, 1961, is required to pass the English proficiency examination administered by Memphis State. (A student who has taken all four of the required freshman and sophomore English courses—1101, 1102, 2101, 2102—at Memphis State University and has made a grade of C or better in each of them will be exempt from the examination.) A student becomes eligible to take the examination only after he has successfully completed 70 semester hours of work. Students who transfer to Memphis State University on or after September 1, 1961, with 70 or more semester hours are eligible immediately to take the examination. Anyone who enrolled at Memphis State University as a regular student prior to September 1961 will not be required to take the examination unless his program is reorganized under the provisions of the catalog of 1961 or later. Dates of the examinations are listed in the University Calendar. For further details see Assistant Professor Harry Cotham, Chairman of the Committee on English Proficiency, Room 471, Patterson Hall.

6. *Air Force ROTC.* All able-bodied, full-time male students under 26 years of age are required to complete successfully the first two years of

Aerospace Studies during their first two years of attendance whether or not they intend to graduate. Veterans and six-months active duty trainees may be excused; excuse cards may be obtained during registration upon proof of military service. A transfer student entering Memphis State University is required to take only the remainder of the general military course offered according to his academic classification. A transfer student admitted with 1 - 12 semester hours is required to take 4 semesters of ROTC; with 13 - 24 semester hours, 3 semesters; with 25 - 37 semester hours, 2 semesters; with 38 - 54 semester hours, 1 semester. A transfer student admitted to Memphis State with junior status (55 or more semester hours transferred in good status) is excused from the Aerospace Studies requirement. Students who have otherwise qualified for graduation in continuous part-time status or through The Evening Division are not required to complete the ROTC requirement and a waiver is not required.

7. *Quality Point Average.* To receive a bachelor's degree from any of the colleges in the University, a student must have a quality point average of at least 2.000 (i.e., two quality points for every semester hour attempted); for the method of computing the quality point average, see page 116. If for any reason a student offers more than 132 semester hours credit for graduation, the ratio of two quality points to one semester hour of credit must be maintained. To attain this standard the candidate must have a C average on all courses attempted in the University. Students who enter Memphis State University with advanced standing are required to maintain an average of C on all courses taken here.

8. *Residence Requirements.* A student will satisfy the residence requirements for graduation by completing, during his junior and/or senior year(s) a minimum of (1) thirty-six weeks of residence and (2) twenty-four semester hours of credit in residence. The final twelve semester hours must be taken in residence. (EXCEPTION: a student who has completed thirty-six weeks in residence during his junior and/or senior year(s) and who lacks no more than four semester hours toward completion of his degree requirements may earn these additional credits by residence at another approved institution or by acceptable correspondence or extension work.)

In computing residence requirements for full-time students the following formulae are used: The successful completion of one semester as a full-time student—i.e., one registered for a minimum of twelve semester hours—gives residence credit of eighteen weeks. The successful completion of one summer term as a full-time student—i.e., one registered for a minimum of six semester hours—gives residence credit of six weeks.

In computing residence requirements for part-time students the following formulae are used: Each semester hour earned in a regular semester gives residence credit of one and one-half weeks, up to a maximum credit of eighteen weeks. Each semester hour earned during a summer term gives residence credit of one week, up to a maximum credit of six weeks.

## Graduation With Distinction.

Students who have fulfilled all graduation requirements, who have completed a minimum of sixty semester hours at Memphis State University prior to their final semester, and who have been in residence for a minimum of four semesters prior to their final semester are eligible for designation as honor graduates. Those who have a quality point average of 3.0 and less than 3.5 will be graduated *cum laude*; those who have a quality point average of

3.5 and less than 4.0 will graduate *magna cum laude*; those who have a quality point average of 4.0 will be graduated *summa cum laude*. (In computing averages for honors, the grades of only the first semester of the graduating year will be included.)

A transfer student, in order to be eligible, must have made the required average on all work taken at Memphis State University and must, in addition, have an over-all average which meets the honors requirements; the final average may in no instance be higher than that made at Memphis State University.

Students who already hold a baccalaureate degree are not eligible for these distinctions.

### Deferred Graduation.

A student is ordinarily allowed to graduate under the requirements of the catalog of the year in which he enters the University. If a student begins work on a degree and fails to complete the requirements, he must, after seven years from the date he entered, reorganize his degree plan to conform to the current catalog. Time spent on active military duty is not considered a part of this seven-year period.

### Pre-Professional Degree Program.

A student who completes six semesters of undergraduate work before entering certain professional schools may, upon evidence of satisfactory completion of the first year of work in the professional school, be granted a baccalaureate degree from Memphis State University, provided that all the following provisions are met *before the student enrolls in the professional school*:

1. Formal application for his Memphis State University degree must be made to the dean of the college in which the student is enrolled.
2. The choice of a professional school must be approved in writing by the dean of the college in which the student is enrolled.
  - a. The minimum requirements for entrance to professional school must be sixty semester hours of undergraduate work.
  - b. The professional school must be accredited by the recognized national association in its field or must be an integral part of a university accredited by the appropriate regional association.
3. The last two semesters of pre-professional work must be done at Memphis State University.
4. The candidate must complete 99 semester hours in a pre-professional curriculum.
5. The candidate must complete, in his pre-professional curriculum, at least 24 semester hours in courses numbered above 2999, including at least 6 semester hours in his major field.



6. The candidate must meet all freshman and sophomore requirements of the degree curriculum.

7. The candidate must complete a minimum of 24 semester hours in his major area and 18 semester hours in his minor area.

The candidate in the pre-professional degree program should notify the dean of his college of his intentions no later than the beginning of his sophomore year and should, with the guidance of his adviser, plan his program at that time.

### Second Bachelor's Degree.

A student who has completed the requirements for one bachelor's degree may receive a second bachelor's degree upon the completion of the curriculum prescribed for the second degree, provided that the work completed includes at least twenty-four semester hours in residence over and above the total number of hours completed for the first degree. The student will be governed by the provisions of the catalog in effect at the time he re-enters the University for work toward the second degree.

### Requirements for Teacher Certification.

An undergraduate student at Memphis State University who wishes to receive a certificate to teach in the elementary or secondary schools of Tennessee must (1) file an application for admission to the teacher education program with the Dean of The College of Education; (2) complete successfully all of the University requirements for a baccalaureate degree; and (3) complete successfully the courses outlined in Sections I, II, and III, below. Applications for admission to the teacher education program cannot be considered until the student has completed a minimum of one and one-half years of college work to the satisfaction of the faculty of The College of Education; for further details, see page 176.

Graduate, special, and transfer students who wish certification should confer with the Director of Certification concerning their individual requirements, particularly the credit to be allowed on courses taken elsewhere or at an earlier time.

### I. PROFESSIONAL EDUCATION (27-33 semester hours)

Education 2011, 2111, 3121, and the courses in *one* of the following groups:

For the elementary certificate: Education 3241, 3251, 3261, 3271, 4242, and 4821 (9 semester hours), for a total of 33 semester hours.

For the secondary certificate: Education 4441, 4841 (9 semester hours), an appropriate secondary schools methods course, and one elective applicable for secondary school teachers, for a total of 27 semester hours.



## II. GENERAL EDUCATION (45 semester hours)

*(Courses taken to meet the requirements of this section may, if applicable, be used to meet the requirements outlined in Section III, below.)*

English 1101, 1102, 2101, 2102.

Health 1102.

History 2601, 2602.

Mathematics 1181 for elementary certification; for secondary certification Mathematics 1111 or any high-numbered mathematics course excluding Mathematics 1201 (Basic Mathematics).

Speech 2911 (for elementary certificate); or Speech 1011, 1211, 1311, or 1411 (for secondary certificate), or 1551.

Science: 9 semester hours (including one two-semester sequence course) in two of the following sciences: biology; chemistry; Geography 1101, 4111, 4121, 4122, 4131; geology; physics. (P. E. majors may take P. E. 3703 for second area).

One course (3 semester hours) in one of the following social sciences: anthropology, economics, geography (other than the earth science courses listed above), political science, and sociology.

One course in the humanities to be chosen from one of the following departments: Art, Foreign Languages (sophomore or above), Music and Philosophy, and Psychology.

One of the following courses: Home Economics 1101, Psychology 1101, Sociology 1111.

## III. SPECIFIC SUBJECT MATTER ENDORSEMENT (Choose A, B, C, D, or E, or any combination of these\*)

*(Courses taken to meet the requirements of Section II, above, may, if applicable, be used to meet any part of the requirements of this section.)*

### A. CORE CURRICULUM (82 semester hours)

Endorsement for core curriculum requires 82 semester hours distributed over the broad fields of language arts, social studies, science, library service, and others. For specific requirements the student should consult the chairman of the Department.

### B. ELEMENTARY CERTIFICATE (58 semester hours)

Art 1101, 3411.

Biology 2001, 2002.

Geography 2301, 2311.

Health 3306.

History 1301, 3900.

Library Service 3111.

Mathematics 1182, 2581.

Music Education 3231, 3232.

Physical Education 1241, 3806.

Physical Science 1031, 1032.

Political Science 2211.

Speech 2911.

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\*The student whose major is secondary education must complete requirements for certification in two or more teaching areas with a combined minimum of 36 semester hours.

### C. SPECIAL EDUCATION

To receive a certificate in special education, the student must have completed 45 semester hours of general education and the following requirements:

Educable Mentally-Retarded (30 semester hours)

Special Education 4000, 4501, 4510, 4521, 5512, 5513, 4541 (6 semester hours), 4542 (3 semester hours)

Education 5551

Completion of the requirements for the elementary or secondary certificate.

### D. KINDERGARTEN THROUGH GRADE 3

To receive a certificate in kindergarten—grade 3, the student must complete the requirements for the elementary certificate and, in addition, must complete Education 3211, 3411, and 4811.

### E. SECONDARY CERTIFICATE (Choose one or more endorsements)

1. ART (24 semester hours)

Art 1101, 1201, 1204, 1311, 1314, 3161, 3411, 3421 or 3424.

2. ARTS: FINE AND INDUSTRIAL. (33 semester hours)

Art 1101, 1201, 1204, 3161, 3411.

Technology: 18 semester hours in technology courses, with not less than 6 semester hours in each of three of the following areas: drafting, woodwork, metalwork, electricity, crafts, mechanics.

3. BUSINESS

All applicants for certification in business subjects are required to complete (a) a group of basic courses and (b) additional courses for endorsement in one or more specific fields; the same course may be applied in both areas.

a. Basic requirements (18 semester hours)

Accounting 2010, 2020.

Economics 2110, 2120.

One course from each of two of the following areas:

Management 1010, FIR 3010; Office Administration 3510; Mathematics 2291.

b. Specific endorsement field (choose one or more)

(1) Bookkeeping (10 semester hours)

Accounting 2010, 2020, 2720, and one additional upper-division course in accounting.

(2) Business Arithmetic (6 semester hours)

Mathematics 1211 or 2291.

(3) Business English (3 semester hours)

Office Administration 3510.

(4) Business Law (6 semester hours)

FIR 3010, 3020

(5) Business machines (3 semester hours)

Management 2711 or Office Administration 4270.

(6) Consumer education (3 semester hours)

Home Economics 4103 or Secondary Education 4701.

## (7) Economics (12 semester hours)

Economics 2110, 2120, and two additional upper-division courses (6 semester hours) in economics

## (8) General business (9 semester hours)

FIR 1010, 3010; and a minimum of 3 semester hours in mathematics, the specific courses to be chosen in conference with the adviser

## (9) Office and clerical practice (3 semester hours)

Office Administration 4320, or 4330, or 4400, or 4401, or 4410, or Management 3750.

## (10) Salesmanship (6 semester hours)

Marketing 3010, 3410

## (11) Secretarial practice (15 semester hours)

Endorsement in office and clerical practice, shorthand, and type-writing

## (12) Shorthand (6 semester hours)

Six semester hours in shorthand, including one upper-division course

## (13) Typewriting (6 semester hours)

Six semester hours in typewriting, including one upper-division course

## 4. DISTRIBUTIVE EDUCATION

Distributive Education 4630, 5640

Student Teaching in distributive education

Business courses (18 semester hours)

Accounting 2010, 2020

Economics 2110, 2120

One course from each of two of the following areas: Management 1010, Finance 3010, Office Administration 3510, Mathematics 2291

Marketing (9 semester hours)

Verified practical experience in a distributive occupation (or Marketing 4991)

## 5. ENGLISH (30 semester hours—18 upper division)

English 1101, 1102, 2101, 2102, 3321, 3322, 3501, 4232 or 4233, 3211 or 3212 or 3213 or 3214, 3221 or 3222 or 3223 or 3224.

In addition to 18 semester hours in the required advanced English courses, it is recommended that the student have 3 semester hours credit chosen from modern or contemporary literature: English 3342, 4242, 4252, 4351, 4441.

## 6. FOREIGN LANGUAGE (18-24 semester hours)

Endorsement may be obtained in French, German, Latin, and/or Spanish; the specific courses to meet certification requirements must be selected in conference with the chairman of the department in which the language is offered. Semester hour requirements are as follows:

If two or more units of one foreign language were taken in high school: 18 semester hours in that language.

If fewer than two units were taken in high school: 24 semester hours in one language.

(If a student has had two or more units in each of two foreign lan-

guages in high school, he may be certified in both languages if he completes a total of 30 semester hours in these same languages, with a minimum of 12 semester hours in each.)

7. HEALTH INSTRUCTION (24 semester hours)  
Health 1202, 2102, 3102, 3202, 4802; Home Economics 2202.  
Biology 1631, 1632.
8. HEALTH AND PHYSICAL EDUCATION  
*For Men* (29 semester hours)  
Health 1102; 2102 or 3502, 3102, 3202 (12 semester hours)  
P. E. 1101, 1251, 1311, 1321 (4 semester hours)  
P. E. 2103 or 2203 or 2303 or 2403, 3203, 3303, 3503, 3603, and 4503 (13 semester hours)  
Biology 1631, 1632.  
*For Women* (31 semester hours)  
Health 1102, 2102, 3102, 3202 (12 semester hours)  
P. E. 1101, 1221, 1251, 1291, 1321 (5 semester hours)  
P. E. 3103, 3203, 3303, 3503, 3603, 4503 (14 semester hours)  
Biology 1631, 1632.
9. HOME ECONOMICS (non-vocational) (30 semester hours)  
Home Economics 1105, 2101, 2102, 2202, 2205, 3302, 3305, 4103, 4104, and upper division elective.
10. INDUSTRIAL ARTS (24 semester hours)  
Twenty-four semester hours in industrial technology courses, including at least 12 semester hours in one of the following areas of specialization: drafting, woodwork, metalwork, electricity, plus Technology 1411 and 2911.
11. LIBRARY SERVICE (12-18 semester hours)  
Endorsement may be obtained as either (a) librarian or (b) teacher-librarian.  
a. Librarian: Library Service 3111, 3121, 3131, 4231, 4232, 4331  
b. Teacher-librarian: Library Service 3131, 4231, 4331, and one of the following courses: Library Service 3111, (for elementary certification or Library Service 3121 (for secondary certification).
12. MATHEMATICS (18 semester hours)  
Mathematics 1212, 1321, 2321, and 11 additional semester hours in mathematics courses.
13. MATHEMATICS AND PHYSICAL SCIENCE (52 semester hours)  
Mathematics 1212, 1321, and 7 additional semester hours in mathematics courses.  
Chemistry 1111, 1112.  
Physics 2111, 2112 or Physics 2511, 2512)  
Physical geography or geology: 8 semester hours  
Mathematics and/or physical sciences electives: 14 semester hours
14. MUSIC (42-46 semester hours)  
Certification in music requires the completion of (1) a group of basic courses and (2) a group of courses in one of two concentration areas.  
1. Basic Music (22 semester hours)  
Music 1121, 1122, Introduction to Music (4)

Music 1032 (and 1012), 1033 (and 1013), 2034 (and 2014), Music Theory (12)

Music 3035, Orchestration (3)

Music 3236, Instrumental Conducting (3)

2. Concentration areas (choose "a" or "b" or both).

a. School Music (vocal emphasis)—20 semester hours

Music Education 4233, Materials and Methods in Music,  
Grades K through 6—2 semester hours

Music Education 4234, Materials and Methods in Music,  
Grades 7 through 9—2 semester hours

Music Education 4236, Choral Materials, Literature and Techniques  
—2 semester hours

Applied Music (14 hours)

Music Education 1312, 1711, 1912, Class Instruction in Brass,  
Stringed, and Woodwind Instruments—5 semester hours

Piano (Class instruction or individual lessons)—4 semester hours

Voice (Class instruction or individual lessons)—4 semester hours

Elective (Class instruction or individual lessons)—1 semester hour

b. Instrumental Music—24 semester hours

Music Education 4232, Materials and Methods in Instrumental  
Music—2 semester hours

Music Education 4234, Materials and Methods in Music,  
Grades 7 through 9—2 semester hours

Music Education 4236, Choral Materials, Literature and Techniques  
—2 semester hours

Applied Music (18 hours)

Music Education 1312, 1711, 1912, Class Instruction in Brass,  
Stringed, and Woodwind Instruments—5 semester hours

Piano (Class instruction or individual lessons)—4 semester hours

Voice (Class instruction or individual lessons)—2 semester hours

Individual lessons on one instrument of major emphasis—6  
semester hours

Elective (percussion recommended)—1 semester hour

15. SCIENCE

Endorsement may be obtained in (a) biology, (b) chemistry, (c) physics,  
(d) general science, and/or (e) a combination of sciences.

(a) Biology (29 semester hours)

Biology 1200, 1600 (9 semester hours)

Biology, Genetics 3070 (4 semester hours)

Biology, Bacteriology 3500 (4 semester hours)

Biology, Ecology 3050 (4 semester hours)

Chemistry 1111, 1112 (8 semester hours)

(b) Chemistry (28 semester hours)

Chemistry 1111, 1112 (8 semester hours)

Chemistry 3311, 3312 (8 semester hours)

Chemistry, Analytical (4 semester hours)

Physics (8 semester hours)

(c) Physics (28 semester hours)

Physics 2111, 2112 or 2511, 2512 (8-10 semester hours)



Physics electives (12-10 semester hours)

Chemistry (8 semester hours)

- (d) General Science (29 semester hours)

Chemistry 1111, 1112 (8 semester hours)

Biology 1200, 1600 (9 semester hours)

Physics 1111, 1112 or 2111, 2112 (6-8 semester hours)

Physics 1811 (3 semester hours)

Earth Science (3 semester hours)

- (e) Broad field of science (32 semester hours)

If a student earns a total of 32 semester hours or more in three of the following sciences, he may receive endorsement for each one in which he has earned a minimum of 12 semester hours: biology, chemistry, geology, physics.

#### 16. SOCIAL STUDIES

Endorsement may be obtained in (a) economics, (b) geography, (c) government, (d) history, (e) sociology, and/or (f) a combination of two or more of these in the broad field of social studies.

- a. Economics (15 semester hours)

Economics 2110, 2120, and 9 additional semester hours in economics courses.

- b. Geography (15 semester hours)

Geography 2301, 2311, and 9 additional semester hours in geography courses.

- c. Government (15 semester hours)

Political Science 1101, 1301, 2211, 2221, and 3 additional hours in political science courses.

- d. History (21 semester hours)

History 1301, 1302, 2601, 2602, and 9 additional semester hours which must include a two-semester upper-division sequence course in history.

- e. Sociology (15 semester hours)

Sociology 1111 and 12 additional semester hours in sociology courses.

- f. With a total of 30 or more semester hours earned in social science courses (including a minimum of 15 semester hours in history) endorsement may be earned for each area in which one has a minimum of 12 semester hours credit. Required courses for each area:

History 1301, 1302 and 9 hours of history electives

Economics 2110, 2120, and 6 hours of economics electives

Geography 2301, 2311, and 6 hours of geography electives

Political Science 2211, 2221, and 6 hours of political science electives

Sociology 1111, and 9 hours of electives in sociology

#### 17. SPEECH (27 semester hours)

Speech 1211, 1311, 1411, 1551, 2321, 2511, 4921, and 4922.

#### 18. VOCATIONAL AND DISTRIBUTIVE EDUCATION

(See Distributive Education)

*The College of Business Administration (building opposite page) offers majors in six departments and has one of the largest enrollments in the University.*



8

Colleges, Schools and Divisions

## THE UNIVERSITY COLLEGE

JOHN LASLEY DAMERON, B.S., M.A., Ph.D., *Acting Dean*

*Room 107, Jones Hall*

All freshman and sophomore students who are admitted to Memphis State University are enrolled in The University College. The purpose of the College is to provide a program of courses and academic advisement which will prepare students for enrollment in one of the degree-granting colleges of the University when they reach the junior year.

When a freshman or sophomore student is admitted to Memphis State University, he is assigned an academic adviser from the full-time advisory staff of The University College. The adviser is available to discuss with the student the many academic programs offered by Memphis State University and to acquaint him with the requirements of the various programs. The adviser counsels each semester with the student concerning the specific courses for which the student should enroll.

While in The University College, the student does not have a specific major, although he may be following the sequence of courses designed for admission, as a junior, into the department where he will major. This means that he is likely to complete, during his University College years, the freshman and sophomore level courses of his major and minor along with other courses which interest him or which are required of all students who plan to earn a bachelor's degree. The student is able to change his educational goal freely during his University College years, and his adviser can inform him concerning the extent to which any change of goal involves additional course work.

The University College adviser also assists the student who is undecided about selection of a major, through counseling, occupational information, and frequently through the use of vocation tests. Advisers are also available to discuss academic problems with the student and to provide whatever assistance they can in preventing loss of credit.



# THE COLLEGE OF ARTS AND SCIENCES

WALTER RHEA SMITH, B.A., M.A., Ph.D., *Dean*

*Room 217, Administration Building*

**T**HE College of Arts and Sciences has three distinct functions within the framework of the University.

1) Its primary function is to offer a strong liberal arts program designed to help the student prepare himself for life in his own cultural setting by acquiring the means and the desire continually to enlarge his intellect and deepen his insights. "The purpose of education," wrote John Stuart Mill, "is to make capable and cultivated human beings. Men are men before they are lawyers, physicians, or manufacturers; and if you make them capable and sensible men, they will make themselves capable and sensible lawyers and physicians." It is the earnest belief of The College of Arts and Sciences that the essential preparation for any profession or vocation is a thorough foundation in those major fields of human interest which are included in the humanities, the natural sciences, and the social sciences. The program of liberal studies at Memphis State University aims to provide the student with a store of factual knowledge; to introduce him to varying sets of principles; to stimulate him to think about and to evaluate these facts and principles; and to encourage him to order his own affairs and those of his society with the talent, insight, and discrimination which he develops.

2) The College of Arts and Sciences offers this kind of education, not only to the candidates for its own degrees, but also to the students of other colleges of the University, all of whose degree plans call for courses in the liberal arts.

3) A third important function of the college is to offer preparatory courses for students interested in careers in medicine, dentistry, nursing, teaching, law, and other professions; specific pre-professional programs, designed to prepare students to qualify for admission to professional schools, are available.

## Degrees Offered.

The College of Arts and Sciences offers six degrees: the Bachelor of Arts, the Bachelor of Science, the Bachelor of Fine Arts, the Bachelor of Music, the Bachelor of Science in Chemistry, and the Bachelor of Science in Medical Technology. Requirements for these degrees are outlined in the section beginning on page 141.

## Organization of the College.

*Departments.* The College of Arts and Sciences comprises sixteen departments: Art, Biology, Chemistry, English, Foreign Languages (French, German, Greek, Italian, Latin, Portuguese, Russian, Spanish), Geography, History, Journalism, Mathematics, Music, Philosophy, Physics, Political Science, Psychology, Sociology and Anthropology, and Speech and Drama. Requirements for the majors and minors offered by these departments are listed in the section beginning on page 152.

*Concentration groups.* The various offerings of the sixteen departments of The College of Arts and Sciences are organized into three concentration groups:

**HUMANITIES:** art, English, French, German, Greek, history, Italian, journalism, Latin, mathematics, music, philosophy, psychology, Russian, Spanish, speech.

**NATURAL SCIENCES:** biology, chemistry, geology (administered by The Herff College of Engineering), physical geography, mathematics, physics.

**SOCIAL SCIENCES:** anthropology, economics (administered by The College of Business Administration), geography (other than physical), history, philosophy, political science, psychology, sociology.

*Lower and Upper Divisions.* The Lower Division comprises the freshman and sophomore years, the first four semesters of undergraduate work; courses in the lower division are numbered from 1000 through 2999. The Upper Division comprises the junior and senior years, the last four semesters of undergraduate work; courses offered in the Upper Division are numbered above 2999. Students who have completed the required number of hours and the required residence to be classified as juniors, but who have not completed their basic requirements in the Lower Division, must schedule these uncompleted requirements during the first semester in which such courses are available.

## Admission.

Students from The University College (of Memphis State University) and from other institutions may apply for admission to The College of Arts and Sciences when they have earned sixty semester hours of college credit and are in good academic standing.

## Residence Requirements.

University residence requirements are explained in detail on page 118. A transfer student in The College of Arts and Sciences must earn at least 6 semester hours in residence in his major subject and at least 3 semester hours in his minor.



## Foreign Language Regulations.

A student at Memphis State University is offered an opportunity to study modern foreign languages in one of two different programs:

(1) **THE REGULAR SEQUENCE**, designed to provide principally a reading knowledge of the language, consists of six 3 semester-hour courses: 1101, 1102, 2201, 2202, 3333, and 3334.

(2) **THE INTENSIVE SEQUENCE**, designed to develop equally the four language skills (listening, speaking, reading, and writing), consists of five courses, with semester-hour credit as indicated in parentheses: 1111 (5), 1112 (5), 2211 (5), 2212 (3)\*, and 2213 (2)\*.

To fulfill the foreign language requirements for the Bachelor of Arts degree (18 semester hours in one language), the student may elect either (1) the six courses of the regular sequence or (2) the first four courses of the intensive sequence.

To fulfill the foreign language requirements for the Bachelor of Science degree (12 semester hours in one language), the student may elect either (1) the first four courses of the regular sequence or (2) the first three courses of the intensive sequence.

*It will not ordinarily be possible for the student to change from one sequence to another.*

To fulfill the foreign language requirement for the Bachelor of Fine Arts, Bachelor of Music, and the Bachelor of Science in Medical Technology (six semester hours in one language), the student may elect two consecutive courses in either sequence.

A student already having proficiency in a foreign language taught at Memphis State University (attained through high school courses, military service, private study, foreign residence, etc.) should enroll in a course at the level for which his training qualifies him. He can best determine this initial course by taking the proficiency test which is given at the beginning of each semester. (Detailed information is available from the dean of the University College or the chairman of the Department of Foreign Languages.) A student taking the proficiency test can apply immediately for the hours of credit warranted by the test score. If he chooses not to take the proficiency test, he may enroll in any course above the beginning one in either sequence, and upon completing it with a grade of "C" or better, he may apply for credit for the preceding courses. In either case, *he must make written application* to the chairman of the Department of Foreign Languages. This regulation shall apply

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\*The student may elect either 2212 (for 3 semester hours credit) or 2212 and 2213 together (for 5 semester hours credit). The 2213 course may not be taken except concurrently with 2212.

only to the lower division, and credit gained in this manner shall not exceed a maximum of 12 semester hours with no more than three hours being allowed for each course.

This regulation will also apply to a student whose mother tongue is a foreign language taught at Memphis State University, with the following modifications: lower-division credit will be given only when he has (1) made a grade of C or better in one upper-division course, other than 3301 or 3302, and (2) passed the English Proficiency examination. He then must make *written application to the chairman of the Department of Foreign Languages*.

Specific requirements in foreign languages for the degrees offered by The College of Arts and Sciences are as follows:

- A. BACHELOR OF ARTS: eighteen semester hours (or the equivalent) in one foreign language. (Greek 1101 and 1102 may be substituted for six semester hours of upper-division Latin; six semester hours of Latin may be substituted for six semester hours of upper-division Greek.)
- B. BACHELOR OF SCIENCE: twelve semester hours (or the equivalent) in one foreign language.
- C. BACHELOR OF SCIENCE IN CHEMISTRY: German 1101, 1102, 2201, 2203
- D. BACHELOR OF FINE ARTS, BACHELOR OF MUSIC, BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY: Six semester hours in one foreign language. (Majors in music history and in voice require 18 semester hours.)

## Pre-Professional Training.

Standing committees of the faculty are available to advise students interested in preparing for careers in various professional areas; committee members, representing departments of the University in which pre-professional training is given, advise students concerning specific programs required by the various professional schools. A student who completes successfully six semesters of undergraduate work before entering an accredited professional school may, upon presentation of evidence of satisfactory completion of the first year of professional education, be granted a baccalaureate degree from Memphis State University, provided that the requirements set forth in the pre-professional degree program described on page 127, are met. The advisory committees are as follows:

*Pre-Medical*—This committee advises students interested in careers in medicine, dentistry, nursing, pharmacy, optometry, veterinary medicine, medical technology, and related fields in the health sciences.

*Pre-Law*—In general, accredited law schools have not adopted specific requirements for pre-law education; they do, however,

emphasize certain courses as being conducive to the development of the broad cultural background necessary for the successful study of law. Students enrolling in The College of Arts and Sciences for their pre-law training are encouraged to enter immediately one of the degree programs offered by the college.

*Pre-Social Welfare*—The student who wishes to prepare for admission to a graduate school of social welfare or who plans to go directly from college into a social welfare program will complete the requirements for the baccalaureate degree with a major in social welfare (sociology); specialized courses will be chosen in conference with the adviser.

### Teacher Preparation.

Students enrolled in a degree program of The College of Arts and Sciences who wish to prepare themselves for teaching careers in the secondary schools of Tennessee may meet the state certification requirements while pursuing their chosen majors. Detailed certification requirements are outlined in the section beginning on page 128. Application to enter the program of teacher preparation must be made in the office of the dean of The College of Education.

### Degree Requirements.

#### BACHELOR OF ARTS

To qualify for the degree of Bachelor of Arts the student must complete a minimum of 132 semester hours with a quality point average of 2.0 (on a scale in which the grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). Of the 132 semester hours required for graduation, at least 45 semester hours must be in courses from the Upper Division (those numbered above 2999). Not more than 42 semester hours in any one subject will be counted toward a degree. Not more than 18 semester hours (excluding required physical education and AF-ROTC courses) may be taken outside The College of Arts and Sciences except for courses required for either (1) the minor or (2) teacher certification, but not both. Detailed requirements are as follows:

English 1101, 1102, 2101, 2102.

Foreign language: 18 semester hours, or the equivalent, in one foreign language; for details see page 139.

History 2601, 2602.

One semester of one natural science, and one two-semester sequence in a second natural science.

(Courses from which these must be selected are Biology 1200, 1600; Chemistry 1051, 1052; or Chemistry 1111, 1112; Geography 1101, Geology 1101; Geology 1101, 1201, (not more than two semesters may be taken in geography and/or geology courses to meet this requirement); Physics 1111, 1112, or 1811, 1812 or 2111, 2112, or 2511, 2512.

One semester of one social science, and one two-semester sequence in each of two other social sciences. (15 semester hours)

(Courses from which these must be selected are Anthropology 1100, 1200; Economics 2110, 2120; Geography 2301, 2311; History 1301, 1302; Political Science 2211, 2221; Psychology 1101, 1102; Sociology 1111, 2112.

Mathematics 1111, 1112; or 1211, 1212; or 1321, 2321; or Philosophy 1111, 1611.

Two of the following courses: Art 1101; Music 1131; Speech 1551.  
Air Force ROTC (for men): for details see page 125.

Physical Education: 2 to 4 semester hours; for details see page 125.

Completion of requirements for any major offered in The College of Arts and Sciences.

Completion of requirements for a minor in any subject (other than the major) offered by any department of the University.

Electives to bring the total to 132 semester hours.

### BACHELOR OF SCIENCE

The Bachelor of Science degree may be awarded only to students majoring in one of the following disciplines: anthropology, biology, chemistry, geography, geology, mathematics, physics, or psychology. Students majoring in anthropology, geography, or psychology (for the Bachelor of Science degree) must minor in either biology, chemistry, mathematics, or physics.

To qualify for the degree of Bachelor of Science the student must complete a minimum of 132 semester hours with a quality point average of 2.0 (on a scale in which the grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). Of the 132 semester hours required for graduation at least 45 semester hours must be in courses from the Upper Division (those numbered above 2999). Not more than 42 semester hours in any one subject will be counted toward a degree. Not more than 18 semester hours (excluding required physical education and AF-ROTC courses) may be taken outside The College of Arts and Sciences except for courses required for either (1) the minor *or* (2) teacher certification, but not both. Detailed requirements are as follows:

English 1101, 1102, 2101, 2102.

Foreign language: 12 semester hours, or the equivalent in one foreign language; for details see page 139.

History 2601, 2602.

Mathematics 1111, 1112; 1211, 1212; or 1321, 2321.

One of the following two-semester sequences: Biology 1200, 1600; Chemistry 1051, 1052; Chemistry 1111, 1112; Geology 1101, 1201; Physics 1111, 1112; or 1811, 1812; or 2111, 2112; or 2511, 2512.

Six semester hours from each of two of the following areas: anthropology, economics, geography (excluding earth science courses and Geography 3501, 3502, and 3511), history (excluding History 2601 and 2602), philosophy, political science, psychology, and sociology.



Two of the following courses: Art 1101; Music 1131; Speech 1551.

Air Force ROTC (for men): for details see page 125.

Physical Education: 2 to 4 semester hours; for details see page 125.

Completion of the requirements for a major in one of the following disciplines: anthropology, biology, chemistry, geography, geology, mathematics, physics, or psychology.

Completion of the requirements for a minor in any subject (other than the major) offered by any department in the University. EXCEPTION: Students majoring in anthropology, geography, or psychology (for a Bachelor of Science degree) must minor in either biology, chemistry, mathematics, or physics.

Electives to bring the total to 132 semester hours.

### BACHELOR OF SCIENCE IN CHEMISTRY

To qualify for the degree of Bachelor of Science in Chemistry, the student must complete a minimum of 132 semester hours with a quality point average of 2.0 (on a scale in which the grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). Of the 132 semester hours required for graduation, at least 45 semester hours must be in courses from the Upper Division (those numbered above 2999). Not more than 18 semester hours (excluding required physical education and AF-ROTC courses) may be in courses outside The College of Arts and Sciences except for courses required for teacher certification. Detailed requirements are as follows:

English 1101, 1102, 2101, 2102.

Foreign language: German 1101, 1102, 2201, and 2203.

History 2601, 2602.

Mathematics 1212, 1321, 2321, 2322.

Physics 2111, 2112 (by permission); or 2511, 2512.

Chemistry 1111, 1112, 3200, 3301, 3302, 3311, 3312, 3411, 3412, 4111, 4220, and six additional hours in senior chemistry courses.

One semester of one social science and one two-semester sequence in another social science. (Courses from which these must be selected are Anthropology 1100, 1200; Economics 2110, 2120; Geography 2301, 2311; Political Science 2211, 2221; Psychology 1101, 1102; Sociology 1111, 2112).

One of the following courses: Art 1101; Music 1131; Speech 1551.

Air Force ROTC (for men only): for details see page 125.

Physical Education: 2 to 4 semester hours; for details see page 125.

Completion of the requirements for a minor in biology, physics or mathematics.

Electives to bring the total to 132 semester hours.

### BACHELOR OF FINE ARTS (IN ART)

The Bachelor of Fine Arts in Art is a professional degree, the requirements for which provide the student with a greater oppor-



tunity for specialization in art than he has under the other baccalaureate programs; for this degree a total of 142 semester hours is required for graduation, 90 of which must be in art courses. A minimum grade of C is required in all art courses; the student must maintain an overall quality point average of 2.0 (on a scale in which a grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). The specific degree requirements are divided into five groups: (1) general education (2) basic art courses (3) courses in *one* of the six concentration areas (4) elective courses in art and (5) elective courses other than art to bring the total to 142 semester hours.

(1) General education courses:

English 1101, 1102, 2101, 2102.

Foreign language: six semester hours in one language.

History 2601, 2602.

One two-semester sequence course (six semester hours or more) in biology, chemistry, geology, mathematics, or physics.

Air Force ROTC (for men only); for details see page 125.

Physical Education (2 or 4 semester hours); for details see page 125.

(Art education majors must also complete all general education courses outlined in section II of the Requirements for Teacher Certification as listed on pages 128-129.)

(2) Basic art courses:

Art 1311, 1314, 2313 (Drawing).

Art 1201, 1204, 2201, 2202 (Design).

Art 2101, 2102 (Art History).

Art 4611 (Senior Problem).

Art History: 12 semester hours in upper-division art history courses. (Interior Design majors are required to take Art 3101, 3102); Art Education majors are required to take *only* Art 3161 and 3162).

(3) Concentration areas (choose a, b, c, d, e, or f).

a. Painting:

Art 2314, 2321, 4321, 4322 (Drawing and Painting).

Art 2351, 3351, 3352 (Printmaking).

Art 3333 and 3334 (Synthetic Media).

Art 3331, 3332, 4331, 4332 (Oil).

b. Printmaking:

Art 2314, 2321, 4321, 4322 (Drawing and Painting).

Art 2351, 3351, 3352, 4351, 4352 (Printmaking).

Art 3333 and 3334 (Synthetic Media).

Art 3331, 3332 (Oil).

c. Graphic Design:

Art 2213 (Lettering and Layout).

Art 2221 (Graphic Production).

- Art 2311 (Perspective).
- Art 2351 (Printmaking).
- Art 3221, 3222, 4221, 4222 (Graphic Design).
- Art 3223 and 3541 (Packaging and Display).
- Art 4321 (Drawing and Painting).
- Art 4341, 4342 (Illustration).
- d. Interior Design:
  - Art 2311 (Perspective).
  - Art 2231, 2232, 3231, 3232, 4231, 4232 (Interior Design).
  - Art 4233, 4234 (Interior Rendering).
  - Art 4235, 4236 (Interior Design Research).
  - Art 4551, 4552 (Working Drawings).
- e. Sculpture:
  - Art 2511, 3511, 3512, 4511, 4512 (Sculpture).
  - Art 2314, 2321, 4321, 4322 (Drawing and Painting).
  - Art 3521, 3522 (Ceramics).
  - Art 3513, 3514 (Ceramic Sculpture).
- f. Art Education:
  - Art 2321, 3521 (Painting and Ceramics).
  - Art 3411, 3413, 3421, 4421 (Art Education).
  - Art 3424 (Textiles).
  - Education 2011, 2111, 3121, 4821, 4841
- (4) Art electives: 9 semester hours.
- (5) Elective courses other than art to complete the total of 142 semester hours. These courses will be chosen by the student in consultation with his adviser and the chairman of the Department of Art.

#### BACHELOR OF FINE ARTS (IN THEATRE)

The Bachelor of Fine Arts in Theatre is a professional degree, the requirements for which provide the student with a greater opportunity for specialization in theatre than he has under the other baccalaureate programs; for this degree a total of 142 semester hours is required for graduation, at least 98 of which must be in theatre courses. A minimum grade of C is required in all theatre courses; the student must maintain an overall quality point average of 2.0 (on a scale in which a grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). The specific degree requirements are divided into five groups: (1) general education (2) basic theatre courses and complements (3) courses in one of the two concentration areas (4) performance and production internship in theatre and (5) elective courses in theatre to bring the total to 142 semester hours.

- (1) General education courses:
  - English 1101, 1102, 2101, 2102.
  - Foreign language: 6 semester hours in one language.
  - History 2601, 2602.

One two-semester sequence course (6 semester hours or more) in biology, chemistry, geology, mathematics or physics.

Air Force ROTC (for men only); for details see page 125.

Physical Education: 2 to 4 semester hours; for details see page 125.

- (2) Basic theatre courses and complements:
  - Speech 1551, Introduction to Theatre (3).
  - Art 1101, Introduction to Art (3).
  - Speech 2511, 2512—Stagecraft (6).
  - Speech 1211, 1411, 2411, 2412—Voice and Interpretation (12).
  - Speech 2531, 2532—Acting (6).
  - Speech 2501, 2502—Movement (4).
  - Speech 3501—Theatre Lab (at least 2 semesters) (2).
  - Speech 3551, 3552—History of Theatre (6).
  - Art 2101, 2102—World Art (6).
- (3) Concentration areas (choose a or b):
  - a. Performance.
    - Speech 3531, 3532, 4531, 4532—Acting (12).
    - Speech 3502, 3503, 4501, 4502—Movement (8).
    - Speech 3451, 4441—Interpretation (6).
    - Speech 3521, 3522—Directing (6).
    - Speech 4571—Playwriting (3).
    - Speech 2541—Stage Make-up (2).
  - b. Production:
    - Speech 3511, 3512—Stagecraft (6).
    - Speech 3521—Directing (3).
    - Speech 3561, 3562, 4563, 4564—Design (12).
    - Speech 4561, 4562—Costuming (6).
    - Speech 4511, 4512—Lighting (6).
    - Speech 4591—Theatre Management (3).
- (4) Production and Performance Internship:
 

Usually 12 to 18 hours of Speech 4011 Production and Performance course. A one or two semester supervised internship will be served by the student in a professional, community or university theatre within the region (normally Front Street Theatre, Memphis Little Theatre or Memphis State University Theatre). A student may receive no more than 9 semester hours of credit each semester in the area of Performance and Production. Credit will vary with amount of time and responsibility involved. Internships may not be served before the summer after the junior year.
- (5) Theatre electives:
 

Elective courses in theatre to complete the total of 142 semester hours.

## BACHELOR OF MUSIC

The Bachelor of Music is a professional degree, the requirements for which provide the student with a greater opportunity for specialization in music than he has under the other baccalaureate programs; as many as 92 of the 132 semester hours required for

graduation may be in music. A minimum grade of C is required in all upper-division music courses; the student must maintain an overall quality point average of 2.0 (on a scale in which a grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). The specific degree requirements are divided into five groups: (1) general education (2) basic music courses (3) courses in *one* of 13 concentration areas (4) music electives and (5) elective courses other than music and music education to bring the total to 132 semester hours.

Detailed requirements are as follows; figures in parentheses indicate semester hours credit.

- (1) General education courses (34-40 semester hours)
  - English 1101, 1102, 2101, 2102 (12).
  - Foreign language: 6 semester hours in one foreign language; for details see page 139 (6).
  - History 2601, 2602 (6).
  - A two-semester sequence course (6 semester hours or more) in biology, chemistry, geology, mathematics, or physics (6-8).
  - Air Force ROTC (for men only); for details see page 125 (6).
  - Physical Education; for details see page 125 (2 or 4).
- (2) Basic music courses (34 semester hours)
  - Music 1032 (and 1012), 1033 (and 1013), 2034 (and 2024), 2035 (and 2025), Music Theory I and II (16).
  - Music 1121, 1122, Introduction to Music (4).
  - Music 3131, 3132, History of Music (6).
  - Major ensembles; for details see page 309 (8).
  - Piano proficiency; for details see page 301.
- (3) Concentration areas (Choose one)
  - a. Brass instruments: (49 semester hours).
    - Individual instruction in major instrument (32).
    - Individual instruction in two secondary brass instruments (4).
    - Music 0001, Applied Music Workshop, 8 semesters required (nc).
    - Music Education 1912, Class Instruction in Woodwind Instruments (2).
    - Music 3033, 3034, Form and Analysis (4).
    - Music 3236, Instrumental Conducting (3).
    - Music 3301, 4301, Junior and Senior Recitals (nc).
    - Small ensemble, 4 semesters required, to be chosen from those listed on page 309 (4).
  - b. Church Music (Choral Emphasis): (50 semester hours)
    - Individual instruction in voice (16).
    - Music 0001, Applied Music Workshop, 8 semesters required (nc).
    - Music Education 1312, Class Instruction in Brass Instruments (2).
    - Music Education 1711, 1712, Class Instruction in Stringed Instruments (2).
    - Music Education 1912, Class Instruction in Woodwind Instruments (2).

- Music 3033, 3034, Form and Analysis (4).  
 Music Education 4236, Choral Materials, Literature and Techniques (2).  
 Music 3236, Instrumental Conducting (3).  
 Music 4101 or 4801, Senior Recital (conducting or voice) (nc).  
 Music 4137, Judeo-Christian Music (3).  
 Music 4138, History of Liturgies (3).  
 Music 4139, Hymnology (3).  
 Music 4237, Church Choir and Console Conducting (3).  
 Music Education 4240, Church Choir Organization and Training (3).  
 Small ensemble, 4 semesters required, to be chosen from those listed on page 309 (4).
- c. Church Music (Organ Emphasis): (56 semester hours)  
 Individual instruction in organ (24).  
 Individual instruction in voice (4).  
 Music 0001, Applied Music Workshop, 8 semesters required (nc).  
 Music 3033, 3034, Form and Analysis (4).  
 Music 3236, Instrumental Conducting (3).  
 Music 4137, Judeo-Christian Music (3).  
 Music 4138, History of Liturgies (3).  
 Music 4139, Hymnology (3).  
 Music Education 4236, Choral Materials, Literature and Techniques (2).  
 Music 4237, Church Choir and Console Conducting (3).  
 Music Education 4240, Church Choir Organization and Training (3).  
 Music 4401, Senior Recital (nc).  
 Small ensemble, 4 semesters required, to be chosen from those listed on page 309 (4).
- d. Composition: (53 semester hours)  
 Individual instruction in applied music (12). (Normally in piano; however, other areas may be substituted after the piano proficiency has been passed.)  
 Music 0001, Applied Music Workshop; 8 semesters required (nc).  
 Music 3023 and 3024, Composition (14).  
 Music 3028, 3029, 3030, Counterpoint (6).  
 Music 3033, 3034, Form and Analysis (4).  
 Music 3035, Orchestration (3).  
 Music 3236, Instrumental Conducting (3).  
 Music 3239, Score Reading (3).  
 Music 4039, Compositional Techniques of the Twentieth Century (3).  
 Music 4132, Modern Music (3).  
 Music 4102, Senior Composition Recital (nc).  
 Music 4236, Choral Materials, Literature and Techniques (2).
- e. Music history: (53-55 semester hours)  
 Individual instruction in applied music (8).  
 Music 3028, 3029, 3030, 3031, Counterpoint (Choose one) (2).  
 Music 3033, 3034, Form and Analysis (4).



- Advanced music history (9).
- Two additional courses in the social sciences (6).
- Additional courses in the natural sciences (6-8).
- Foreign language in addition to the 6 semester hours required in the general education group (12).
- One course in mathematics or philosophy (3).
- One course in art or speech (3).
- f. Music theory: (48 semester hours)
  - Individual instruction in applied music (12). (Normally in piano; however, other areas may be substituted after the piano proficiency has been passed.)
  - Music 0001, Applied Music Workshop, 8 semesters required (nc).
  - Music 3023, Composition (2).
  - Music 3028, 3029, 3030, Counterpoint (6).
  - Music 3033, 3034, Form and Analysis (4).
  - Music 3035, Orchestration (3).
  - Music 3236, Instrumental Conducting (3).
  - Music 4030, History of Theory (3).
  - Music 4033, Critical Studies in Music (3).
  - Music 4039, Compositional Techniques of the Twentieth Century (3).
  - Music 4132, Modern Music (3).
  - Music Education 4236, Choral Materials, Literature and Techniques (2).
  - Small ensemble, 4 semesters required, to be chosen from those listed on page 309 (4).
- g. Organ: (56 semester hours)
  - Individual instruction in organ (40).
  - Music 0001, Applied Music Workshop, 8 semesters required (nc).
  - Music 3401, 4401, Junior and Senior Recitals (nc).
  - Music 4137, Judeo-Christian Music (3).
  - Music 4138, History of Liturgies (3).
  - Music 4237, Console Conducting (3).
  - Music 4238, Service Playing (3).
  - Small ensemble, 4 semesters required, to be chosen from those listed on page 309 (4).
- h. Piano and/or Harpsichord: (51 semester hours).
  - Individual instruction in piano and/or harpsichord (40).
  - Music 0001, Applied Music Workshop, 8 semesters required (nc).
  - Music 3033, 3034, Form and Analysis (4).
  - Music 3601, 4601, Junior and Senior Recitals (nc).
  - Music 4134, Piano Pedagogy (3).
  - Small ensemble, 4 semesters required, to be chosen from those listed on page 309 (4).
- i. Strings: (50 semester hours)
  - Individual instruction in major instrument (32).
  - Individual instruction in two secondary stringed instruments (4).
  - Music 0001, Applied Music Workshop, 8 semesters required (nc).

Music 3033, 3034, Form and Analysis (4).

Music 3035, Orchestration (3).

Music 3236, Instrumental Conducting (3).

Music 3701, 4701, Junior and Senior Recitals (nc).

Small ensemble, 4 semesters required, to be chosen from those listed on page 309 (4).

j. Voice: (55 semester hours)

Individual instruction in voice (24).

Music 0001, Applied Music Workshop, 8 semesters required (nc).

Music 3033, 3034, Form and Analysis (4).

Music 3121, 3122, Song Literature (4).

Music 3801, 4801, Junior and Senior Recitals (nc).

Music 3884, Opera Production Laboratory, 2 semesters required (2).

Music 4133, The Opera and the Music Drama (3).

Music Education 4236, Choral Materials, Literature and Techniques (2).

Foreign language, in addition to the 6 semester hours required in the general education group (12).

Small ensemble: 2 semesters of Opera Workshop and 2 semesters to be chosen from those courses listed on page 309 (4).

k. Opera: (47 semester hours)

Individual instruction in voice (16).

Music 0001 (nc).

Music 3121, 3122, Song Literature (4).

Music 3801, 4801, Junior, Senior Recitals (nc).

Note: The junior recital will be satisfied by the public performance of a major operatic role.

Music 3825, Dramatic coaching (8).

Music 3882, Opera Workshop (4).

Music 3883, Opera Soloists (2).

Music 3884, Opera Production Laboratory (4).

Music 4133, The Opera and the Music Drama (3).

Foreign Language: 12 hours, 6 in one language to fulfill the general education requirement; at least 3 hours in German and 3 hours in Italian.

l. Woodwinds: (54 semester hours)

Individual instruction in major instrument (32).

Individual instruction in three secondary woodwinds (6).

Music 0001, Applied Music Workshop, 8 semesters required (nc).

Music Education 1312, Class Instruction in Brass Instruments (2).

Music 3033, 3034, Form and Analysis (4).

Music 3035, Orchestration (3).

Music 3236, Instrumental Conducting (3).

Music 3901, 4901, Junior and Senior Recitals (nc).

Small ensemble, 4 semesters required to be chosen from those listed on page 309 (4).

m. Percussion: (49 semester hours)

Individual instruction in percussion (32).

Music 0001, Applied Music Workshop, 8 semesters required (nc).

Music 1312, Class Instruction in Brass Instruments (2).

Music 1711, 1712, Class Instruction in String Instruments (2).

Music 1912, Class Instruction in Woodwind Instruments (2).

Music 3033, 3034, Form and Analysis (4).

Music 3236, Instrumental Conducting (3).

Music 3501, 4501, Junior and Senior Recitals (nc).

Small ensemble, 4 semesters required, to be chosen from those listed on page 309 (4).

- (4) Music Electives: at least 6 semester hours in upper-division music courses selected from a concentration area other than the one chosen for the major.
- (5) Elective courses to bring the total to a minimum of 132 semester hours. These courses will be chosen by the student in consultation with his adviser and major professor.

### BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY

For students interested in careers in medical technology, The College of Arts and Sciences offers a three-year preparatory curriculum, the successful completion of which will qualify them to enter any school of medical technology approved by the American Medical Association Council on Medical Education. After completion of the curriculum in the school of medical technology, the student is eligible for examination and certification by the Registry of Medical Technologists of the American Society of Clinical Pathologists.

The University maintains an affiliation in Memphis with the Schools of Medical Technology of the Baptist Memorial Hospital, Methodist Hospital, and St. Joseph Hospital, all of which are accredited. Only those students who enroll in the School of Medical Technology of one of these hospitals can qualify for the degree of Bachelor of Science in Medical Technology from Memphis State University. Should a student decide to enter one of these schools after completing successfully the preparatory curriculum, he should apply directly to the school of his choice nine to twelve months in advance of the time he wishes to enter. After the completion of his clinical year he may apply for the degree of Bachelor of Science in Medical Technology from this University. A student who wishes to pursue this degree plan must file a degree program with the Dean of The College of Arts and Sciences no later than the first semester of his sophomore year.

Specific requirements for the preparatory curriculum in medical technology and the additional requirements for those working toward a baccalaureate degree are as follows:

English 1101, 1102, 2101, 2102

Foreign language: 6 semester hours in one language

History 2601, 2602

Psychology 1101 or Sociology 1111

Psychology 1102

Mathematics 1211 or Mathematics 1212

Biology 1200, 1600, 3500, 3070, 3800, 3730, 4440

Chemistry 1111, 1112, 2200, 3301, 3302, 3311, 3312

Philosophy 1111, 1611

Any two of the following: Art 1101, Music 1131, Speech 1551

Air Force ROTC (for men only); see page 125 for details

Physical Education: see page 125 for details

A curriculum schedule, showing the semester in which each of these courses should be taken, may be obtained from members of the Pre-Medical Advisory Committee.

*IMPORTANT NOTE: The preparatory curriculum in medical technology does NOT qualify a student for the three-year pre-professional degree program described on page 127 of this catalog. Only those students who enroll in the Schools of Medical Technology of the Baptist Memorial Hospital, the Methodist Hospital, or St. Joseph Hospital, all located in Memphis, can qualify for the degree of Bachelor of Science in Medical Technology from Memphis State University.*

## Departmental Requirements for Majors and Minors.

Listed below are the specific course requirements for all majors and minors offered in The College of Arts and Sciences. A minimum grade of C is required in every course applicable toward a major or a minor (including corequisites), except in beginning courses and in sophomore English.

Every student should be aware that the mere completion of courses outlined below with a grade of C or better does not guarantee him classification as a major or minor in the discipline concerned; *he must be recommended by the chairman of the department in which the major or minor is sought.* If, in the opinion of the chairman, the quality of the student's work is not high enough, he may require additional work, the repetition of courses, or other evidences of superior scholarship.

### ANTHROPOLOGY (See SOCIOLOGY AND ANTHROPOLOGY)

**ART:** *(The requirements listed below are for the major in art history and minor in art for the Bachelor of Arts degree; for detailed requirements for the Bachelor of Fine Arts, a professional degree, see page 143.)*

*The Major in Art History:* 36 semester hours in art history courses, including Art 2101, 2102, 3161, 3162, and 4611, and 21 additional semester hours, 9 of which must be from the upper division.

*The Minor:* 24 semester hours in art courses, 9 of which must be from the upper division.

**BIOLOGY**

*The Major:* 36 semester hours in biology courses, 18 of which must be from the upper division; the student will elect *one* of the following areas of concentration and meet the specific requirements outlined below:

a. Botany

Biology 1200, 1600, 3070, 3240, 3500

Biology electives (chosen in conference with the adviser) to bring the total semester hours in biology to 36, including one field course

Chemistry 1111 and 1112 or the equivalent

b. Microbiology

Biology 1200, 1600, 3070, 3500, 3800

Biology electives (chosen in conference with the adviser) to bring the total semester hours in biology to 36

Chemistry 1111 and 1112 or the equivalent

c. Invertebrate Zoology or Entomology

Biology 1200, 1600, 3070, 3800, 3900

Biology electives (chosen in conference with the adviser) to bring the total semester hours in biology to 36

Chemistry 1111 and 1112 or the equivalent

d. Vertebrate Zoology

Biology 1200, 1600, 3070, 3610, 3620

Biology electives (chosen in conference with the adviser) to bring the total semester hours in biology to 36

Chemistry 1111 and 1112 or the equivalent

*The Minor:* 18 semester hours in biology courses (including Biology 1200 and 1600), 7 of which must be from the upper division.

**CHEMISTRY:** (*The requirements listed below are for majors and minors for the Bachelor of Arts or Bachelor of Science degrees; for detailed requirements for the Bachelor of Science in Chemistry, a professional degree, see page 143.*)

**CHEMISTRY**

*The Major:* 32 semester hours in chemistry courses, plus related courses, outlined below:

Chemistry 1111, 1112, 3301, 3302 (or 3304), 3311, 3312, and 16 additional semester hours in chemistry courses numbered above 2999.

Mathematics 1212, 1321, 2321, 2322

Physics 2511, 2512 (or 2111, 2112 if approved by the chairman of the Department of Chemistry.)

*The Minor:* 20 semester hours in chemistry courses, including Chemistry 1111, 1112, 3301, 3302 (or 3304), 3311, 3312, and a three-or-four-semester hour course from the upper division.

**PHYSICAL SCIENCE**

A major in physical science is suggested for pre-professional students in the medical sciences, or those students who plan to teach the sciences in high school but do not desire to major in either chemistry or physics.



*The Major:* 32 semester hours in chemistry and physics courses, including Chemistry 1111, 1112; Physics 2511, 2512 (or Physics 2111, 2112); and additional hours in chemistry and/or physics courses from the upper division to bring the total to 32 semester hours.

*The Minor:* 20 semester hours in chemistry and/or physics courses, of which at least 8 semester hours must be from the upper division.

## ECONOMICS

*The Major:* 30 semester hours including Economics 2110, 2120, 3610, 4310, 4320; Management 3711 (or Mathematics 2611 or 3651), and 12 additional semester hours in economics courses from the upper division as approved by the department chairman.

*The Minor:* 18 semester hours in economics courses, including Economics 2110, 2120, 3610, 4310 (or 4320), and 6 additional semester hours from the upper division as approved by the department chairman.

## ENGLISH

*The Major:* 24 semester hours in upper-division English courses, including hours as specified from each of the following groups, each student's program to be arranged so as to provide the greatest possible chronological scope:

- I. Language (3): English 3501 or 4501.
- II. American Literature (3): English 3321 or 3322.
- III. English Literature
  - A. (3): English 3211, 3212, 3213, or 3214.
  - B. (3): English 3221, 3222, 3223, or 3224.
- IV. Major Authors (3): English 4231 or 4234.
- V. Shakespeare (3): English 4232 or 4233.
- VI. Genre (3): English 3341, 3342, 4241, 4242, 4251, 4252, or 4351.
- VII. One additional upper-division English course (3), selection to be made with approval of adviser in light of choices made from first six groups.

NOTE: Students who wish to satisfy the requirements for both the English major and for endorsement to teach English in high school within the minimum of 24 hours must choose English 3321 from Group II; English 3214 from Group III A; English 3221, 3222, or 3223 from Group III B; and English 3322 from Group VII.

*The Minor:* 15 semester hours in upper-division English courses, including hours as specified from each of the following groups:

- I. Language (3): English 3501 or 4501.
- II. American Literature (3): English 3321 or 3322.
- III. English Literature (3): English 3214, 3221, 3223, or 3224.
- IV. Shakespeare (3): English 4232 or 4233.

- V. One additional upper-division English course (except one from the century chosen in the Group III option) (3).

**FOREIGN LANGUAGES:** The Department of Foreign Languages offers majors and minors in French, German, Latin and Spanish. Minors are also offered in Italian, Greek, and Russian.

Requirements for majors and minors are as follows:

**FRENCH**

*The Major:* 24 semester hours in upper-division French courses, including French 3301, 3401, 3411, 3412. Completion of at least two of these four courses is required before enrolling in other upper-division French courses.

*The Minor:* 12 semester hours in upper-division French courses.

**GERMAN**

*The Major:* 24 semester hours in upper-division German courses, including German 3301, 3410, 3411, and 3412. Completion of at least two of these four courses is required before enrolling in other upper-division German courses.

*The Minor:* 12 semester hours in upper-division German courses.

**GREEK**

*The Minor:* 9 semester hours in upper-division Greek courses.

**LATIN**

*The Major:* 18 semester hours in upper-division Latin courses. Six semester hours in Elementary Greek are recommended in addition.

*The Minor:* 9 semester hours in upper-division Latin courses.

**ITALIAN**

*The Minor:* 12 semester hours in upper-division Italian courses.

**RUSSIAN**

*The Minor:* 12 semester hours in upper-division Russian courses.

**SPANISH**

*The Major:* 24 semester hours in upper-division Spanish courses, including Spanish 3301 (or 3302), 3411, 3412, and 3511 (or 3512). Completion of at least two of these courses is required before enrolling in other upper-division Spanish courses.

*The Minor:* 12 semester hours in upper-division Spanish courses.

**FRENCH** (See FOREIGN LANGUAGES)

**GEOGRAPHY**

*The Major:* 25 semester hours in geography courses, including Geography 1101, 2301, 2311, and 15 additional semester hours from the upper division; and Geology 1101.

Upper-division courses will be distributed as follows: 6 semester hours of regional courses selected from Geography 3301, 3302, 3312, 3313, 3314, 3315, 4304, 4305, 4306, 4314, 4315, 4316, and 4317.

6 semester hours of topical courses selected from Geography 3201, 3211, 3401, 3402, 3411, 4111, 4121, 4122, 4131, 4421, 4431, 4432, 4433, 4434, and 4435.

3 semester hours of technique courses selected from Geography 3501, 3502, and 3511.

*The Minor:* (a) GEOGRAPHY: 19 semester hours in geography courses, including Geography 1101, 2301, 2311, and nine additional hours from the upper division; and Geology 1101.

Upper-division courses will be distributed as follows: 3 semester hours of regional courses, 3 semester hours of topical courses, and 3 semester hours elective. (For courses, see requirements for major).

(b) AFRICAN AREA STUDIES: 18 semester hours from anthropology, geography, history, and political science courses to be selected from the following: Anthropology 3242, 3342; Geography 3301, 3302; History 4281, 4282; Political Science 3308, 3309.

NOTE: The student may not apply any course to fulfill requirements for both his African Area Studies minor and for his major.

## **GEOLOGY**

*The Major:* 36 semester hours in geology courses, including Geology 1101, 1201, 2311, 2312, 2512, 3211, 3311, 3712, 4622, and additional semester hours from the upper division as approved by the adviser.

Chemistry 1111 and 1112.

Mathematics 1321.

Physics 2511, 2512 or 2111, 2112.

*The Minor:* 18 semester hours in geology courses, including Geology 1101, 1201, and 10 additional semester hours.

## **GERMAN** (See FOREIGN LANGUAGES)

## **HISTORY**

*The Major:* 30 semester hours in history courses, including History 1301, 1302, 2601, 2602, and 18 additional semester hours from the upper division with a maximum of 12 semester hours in any one field (United States, Latin American, European, African, Far Eastern).

*The Minor:* (a) HISTORY: 24 semester hours in history courses, including History 1301, 1302, 2601, 2602, and 12 additional semester hours from the upper division.

(b) AFRICAN AREA STUDIES (Requirements listed under Geography minor).

## **JOURNALISM**

### **NEWS-EDITORIAL**

*The Major:* 30 semester hours in journalism courses, including Journalism 1011, 1012, 2111, 2112, 2300, 3112, 3113, 4001, 4005, and 3 additional semester hours from the upper division.

*The Minor:* Journalism 1011, 1012, 2111, 3112, 2300, and one additional upper-division course from the news-editorial major.

#### ADVERTISING-PUBLIC RELATIONS

*The Major:* 30 semester hours in journalism courses, including 1011, 1012, 2111, 2211, 2300, 3210, 3221, 3222, 4222, 4232.

*The Minor:* Journalism 1011, 1012, 2111, 2300, 4222, and one additional upper-division course from the advertising-public relations major.

#### THE MAGAZINE

*The Major:* 30 semester hours in journalism courses, including 1011, 1012, 2111, 2211, 2300, 3111, 3114, 3116, 3117, and three additional semester hours from the upper division.

*The Minor:* Journalism 1011, 1012, 2300, 3114, 3116, and one additional upper-division course from the magazine major.

#### RADIO-TELEVISION-FILM (see page 159).

*Note:* All journalism students must have typing proficiency before admission to courses numbered 2000 and above.

Practical experience is available to all journalism students on *The Tiger Rag*, a semi-weekly newspaper; *The Statesman*, a fortnightly departmental publication; *The DeSoto*, University yearbook; or in one of the following activities: University Public Information Office, Athletic Publicity Office, Alumni Publicity Office, Photo Service Department. Qualified majors will be chosen for senior-year internships with Memphis newspapers, advertising-public relations agencies, and broadcasting stations.

#### LATIN (See FOREIGN LANGUAGES)

#### MATHEMATICS

*The Major:* A minimum of 30 semester hours in mathematics courses including Mathematics 1321, 2321, 2322, 3111, and 15 additional semester hours from the upper division. Chemistry 1111 and 1112; or Physics 2511 and 2512.

*The Minor:* 18 semester hours in mathematics courses, including either Mathematics 1321, 2321, 2322, or 6 semester hours from the upper division.

**MUSIC:** *The requirements listed below are for the major and minor in music for the Bachelor of Arts degree; for detailed requirements of the Bachelor of Music, a professional degree, see page 146.*

*The Major:* 34 semester hours in basic music courses plus the completion of the requirements for one concentration area; specific courses are outlined below:

a. Basic Music courses (34 semester hours)

Music 1032 (and 1012), 1033 (and 1013), 2034 (and 2014); 1121, 1122; 3131, 3132.

8 semester hours of applied music, 4 semester hours of music ensemble, and 8 semesters of Applied Music Workshop (nc).

b. Concentration Areas (Choose one)

1. Applied Music (8 semester hours)

8 semester hours of individual instruction in upper division courses.

2. Music History and Literature (8 semester hours)

Additional courses in music history as suggested by the student's adviser.

*The Minor:* 22 semester hours in basic music courses plus the completion of the requirements for one concentration area; specific courses are outlined below:

a. Basic Music Courses (22 semester hours)

Music 1032 (and 1012), 1033 (and 1013); 1121, 1122; 3131, 3132; and 4 semester hours of individual instruction in piano, organ, voice, or orchestral instrument. Registration for applied music workshop is required for each semester in which applied music is elected.

b. Concentration Areas (Choose one)

1. Applied Music (4 semester hours)

4 semester hours of individual instruction in upper-division courses.

2. Music History and Literature (6 semester hours)

Two or more courses as recommended by the student's adviser.

## PHILOSOPHY

*The Major:* 30 semester hours in philosophy courses, including Philosophy 1111, 1611, 2211, 2311, 2411 (or 2511), and 15 additional semester hours, at least 12 of which must be from the upper division.

*The Minor:* 21 semester hours in philosophy courses, including Philosophy 1111, 1611, and 15 additional semester hours, at least 9 of which must be from the upper division.

## PHYSICAL SCIENCE : (See CHEMISTRY)

## PHYSICS

*The Major:* 32 semester hours in physics courses, including Physics 2511, 2512 (Physics 2111, 2112 are acceptable but not recommended) and additional upper-division courses.

Mathematics 1321, 2321, 2322, and 3391, or equivalent courses.

*The Minor:* 20 semester hours in physics courses, including Physics 2511, 2512 (Physics 2111, 2112 are acceptable but not recommended), and additional upper-division courses.

## POLITICAL SCIENCE

*The Majors:*

Political Science: 30 semester hours in political science courses, including Political Science 1101, 2211, 2221 and a minimum of 18 additional semester hours from the upper division.

Public Administration: 30 semester hours in political science courses, including Political Science 1101, and a minimum of 18 additional semester hours from the upper division, including 12 semester hours of public administration courses.

*The Minor:* (a) POLITICAL SCIENCE: 18 semester hours in political science courses, including Political Science 1101 and at least 6 semester hours from the upper division.  
(b) AFRICAN AREA STUDIES (Requirements listed under Geography minor).

## PSYCHOLOGY

*The Major:* 33 semester hours in psychology courses, including Psychology 1101, 1102, 2301, 2302, 3201, 4101, and 13 additional semester



hours, of which at least 6 must be from other 3000 level courses and at least 4 must be from 4200 level courses. It is strongly recommended that psychology majors complete all lower-division courses prior to enrolling in any upper-division course.

*The Minor:* 20 semester hours, including Psychology 1101, 1102, 2302, and 10 additional hours.

### RADIO-TELEVISION-FILM

A student may major in Radio-Television-Film through either the Department of Journalism or the Department of Speech and Drama; he will be advised by a member of the joint-advisory committee composed of faculty members from both departments. Requirements for each of the four areas of emphasis available to majors are outlined below:

*The Major:*

Broadcast Journalism: 30 semester hours as follows: Journalism 1011, 2111, 2112, 3221, 3331, 3333, 3340; Speech 2821, 3841; and three additional semester hours selected in conference with the adviser.

Film: 35 semester hours as follows: Journalism 1011, 3332, 3340; Speech 1311, 1781, 2821, 3801 (two semesters), 3841, 3891, 4891, 4892; and one of the following courses: Speech 3311, 3521, 3371, 4861.

Radio-Television-Film: 35 semester hours as follows: Journalism 1011, 3332; Speech 1311, 1781, 2821, 3801 (two semesters), 3841 (or Journalism 3340), 3891, 4811, 4831; one of the following courses: Speech 3311, 3371, 4101; and one of the following courses: Journalism 3331; Speech 3821, 3842, 4891.

Radio-Television-Sales Management: 35 semester hours as follows: Journalism 1011, 3322; Speech 1311, 1781, 2821, 3801 (two semesters), 3841, 4811, 4831, 4871; and two of the following courses: Journalism 2300, 3331, 3340, 4001, 4222; Management 3750; Speech 3311.

*The Minor:* 18 semester hours as follows: Journalism 1011, 3332, 3340 (or Speech 3841); Speech 2821; and 6 additional semester hours from upper-division courses in radio-television-film as approved by the adviser.

NOTE: All radio-television-film students must have typing proficiency before admission to courses numbered 2000 and above.

### SOCIOLOGY AND ANTHROPOLOGY

IMPORTANT NOTE: A student who elects to major in either sociology, law enforcement, or social welfare may not minor in any one of these areas.

#### SOCIOLOGY

*The Major:* 30 semester hours in sociology courses, including Sociology 1111, 2112, 3311, 3322, 4211, and 15 additional semester hours, at least 9 of which must be taken from the upper division. No more than three semester hours toward a major will be accepted from social welfare or law enforcement courses.

*The Minor:*

- Sociology:* 18 semester hours in sociology courses, including Sociology 1111 and 2112, and 12 additional semester hours, at least 6 of which must be from the upper division.
- Industrial Sociology:* 18 semester hours in sociology courses, including Sociology 1111, 2112, 3841, 4842, and 6

additional semester hours, at least 3 of which must be from the upper division.

#### ANTHROPOLOGY

- The Major:* 30 semester hours in anthropology courses, including Anthropology 1100, 1200, 3065, 4065, 4995, and 15 additional semester hours, at least 9 of which must be from the upper division.
- The Minor:*
- Anthropology:* 18 semester hours in anthropology courses, including Anthropology 1100, 1200, 3065, and 4065.
  - African Area Studies* (Requirements listed under Geography minor).

#### LAW ENFORCEMENT

- The Major:* 30 semester hours in sociology, law enforcement, and social welfare courses as follows: Sociology 1111, 3521, 4320; Law Enforcement 1520 (or Sociology 3510), 4528; plus courses in one of the following concentration areas:
- Police Administration:* Law Enforcement 4523, 4526, 4527, 4530, 4531.
  - Corrections:* Law Enforcement 4524, 4525; Social Welfare 2911, 3912; Sociology 4522.
  - General Law Enforcement:* Law Enforcement 4523; Social Welfare 2911; Sociology 3430 and 4522; and three additional semester hours from upper-division courses in sociology, law enforcement, or social welfare.
- The Minor:* 18 semester hours in sociology, law enforcement, social welfare courses, including Sociology 1111, 3430, 3521, Law Enforcement 4526, and six additional semester hours, at least 3 of which must be from the upper division.

#### SOCIAL WELFARE

- The Major:* 30 semester hours in sociology, social welfare, and law enforcement courses, including Sociology 1111, 2112, 3311, 4211; Social Welfare 2911; nine (9) additional hours from Social Welfare 2921, 3911, 3912, 3923; and six (6) additional hours from other upper-division courses in sociology, social welfare, or law enforcement.
- The Minor:* 18 semester hours in sociology and social welfare courses, including Sociology 1111, Social Welfare 2911, 3911, 3912, and 6 additional semester hours, at least 3 of which must be from the upper division.

#### SPANISH (See FOREIGN LANGUAGES)

**SPEECH AND DRAMA:** (*The requirements listed below are for the majors and the minor in speech and drama for the Bachelor of Arts degree; for detailed requirements for the Bachelor of Fine Arts degree in theatre, see page 145.*)

##### *The Majors:*

General Speech: 36 semester hours in speech courses, including Speech 1211, 1311, 1411, 1551, 2311, 2511, 2531, 3301 or 3401 or 3501 (two semesters), and 13 additional semester hours from the upper division.

Oral Communication: 36 semester hours in speech courses, including Speech 1211, 1311 (or 2311), 1781, 2321, 3311, 3341, 3371, and 15 additional semester hours chosen from the following: Speech 2311, 2331,

3301 (limited to two semesters), 4101, 4341, 4351, 4361, 4362, 4365, 4366, 4371, 4922.

Radio, Television, and Film: (see page 159)

Speech Pathology: 34 semester hours in speech courses including Speech 1311 (or 1211), 1411 (or 2531), 2611, 2621, 2631, 3601, 3602, 3603, 3604, 3641, 3651, 3661, 3631 (or 3681), 4671.

Audiology: 34 semester hours in speech courses including Speech 1311 (or 1211), 1411 (or 2531), 2611, 2621, 2631, 3601, 3602, 3603, 3604, 3631, 3641, 3681, 4631, 4632.

Theatre and Oral Interpretation: 35 semester hours in speech and drama courses, including Speech 1211, 1311 (or 2311), 1411, 1551, 2511, 2531, 3401 or 3501 (two semesters), and 15 additional semester hours chosen from the following: Speech 2411, 2512, 2541, 3451, 3521, 3531, 3551, 3552, 3561, 4421, 4431, 4441, 4451, 4511, 4561, 4571, 4581, 4921. Specific course requirements for theatre emphasis or oral interpretation emphasis will be determined in conference with adviser. Theatre majors must obtain permission from adviser to work in theatres outside the University.

*The Minor:* 22 semester hours in speech courses, including Speech 1211, 1311, 1411, 2321, 2511, 3301 or 3401 or 3501, and 6 additional hours from the upper division.

Speech minor for Business Administration majors: 18 semester hours in speech courses, including Speech 1311, 1211, 2331, 3011, 3341, 4351.

Speech minor in Oral Interpretation: 18 semester hours in speech courses, including Speech 1211, 1411, 2411, 4421 (or 4431), and six hours chosen from the following: 2412, 3451, 3551, 3552, 4441, 4451, 4551, 4581.

# THE COLLEGE OF BUSINESS ADMINISTRATION

HERBERT JOHN MARKLE, B.B.A., M.A., Ph.D., *Dean*

*Room 100, The College of Business Administration Building*

THE function of The College of Business Administration is to provide the basic education necessary to prepare a person to enter the profession of business. A significant characteristic of the college is that it provides for concentration in the basic areas of economics and business, not as a substitute for, but as a part of a broad liberal education. From forty to sixty per cent of the course work taken for the Bachelor of Business Administration degree (a required minimum of 40 per cent) is taken in such areas as the humanities, the natural and physical sciences, and the social sciences.

## Areas of Professional Training.

The College of Business Administration offers a wide selection of general and specialized fields, each of which has programs designed to prepare students for a variety of careers:

*Careers in Accountancy:* Accounting is a vital activity in any business. The increased complexity of financial records resulting from federal regulations and the expanded use of automation necessitates a highly technical background for persons who prepare financial reports. It administers the testing program of The American Institute of Certified Public Accountants, the national scope of which enables students to check their individual ratings with national averages. Graduates with a major in accounting are qualified to take the Certified Public Accountants' examination in Tennessee; students desiring a career in public accounting are encouraged to intern with a public accounting firm in their senior year.

*Careers in Economics:* A sound understanding of our economic system is essential for today's businessman. In addition, business employs the professional economist for forecasting and explaining the effect of changing economic variables. Many economists are employed by government for comparable reasons. Training in economics is designed to increase awareness of economic problems and encourage the student to analyze alternative solutions for himself.

*Careers in Finance, Insurance, and Real Estate:* Due to the greatly increased recognition given to managing the financial operations of a business, with its increased complexity and newer tech-

niques, considerable demand has developed for those skilled in managing the financial flows of a business.

The risk factor involved in both business and life is beyond man's control. To meet this challenge, courses in insurance can be highly rewarding for the college graduate. The department offers preparation for careers in property insurance, life insurance, and risk management.

The ever-increasing growth in population, with a constant supply of real estate, demands that the businessman have a working knowledge of real estate problems. Courses are offered to prepare students for both private practice and to function as an integral part of a business organization.

*Careers in Management:* The decisions of management in business are more and more being recognized as having broad implications extending beyond the individual firm. In recognition of this, the Department of Management offers the broad preparation necessary for future managers in such areas as general business management, personnel administration and industrial relations, and production management.

*Careers in Marketing:* One of the phenomena observed among college graduates is their frequent gravitation toward careers in marketing despite the field for which they prepared while in college. The Department of Marketing provides an educational experience for those who are interested in such areas as retailing, wholesaling, industrial marketing, purchasing, advertising, sales management, logistics, and marketing research. Careers in marketing provide a high degree of freedom, mobility, security, challenge, and a high level of monetary reward.

Students who wish to teach marketing (distributive education) in high schools, technical institutes, and junior colleges should minor in Distributive Education in The College of Education. Certification requirements are listed on page 128. For information concerning careers in this field students should see the chairman of the Department of Distributive Education.

*Careers as Professional Secretaries:* The value of a secretary, either man or woman, with a university degree is receiving increasing recognition by business executives; the same thing is true in the field of office management. Thorough training in both fields is provided by the Department of Office Administration.

*Careers in Business Education:* Preparing students to teach business subjects in the secondary schools is an important function of The College of Business Administration. A student with a major in any one of the six departments of the college may qualify for a high school teaching certificate; he will minor in education and



complete the certification requirements outlined on page 128. The chairman of the Department of Office Administration serves as adviser to all students in The College of Business Administration preparing for a career in business education.

### **The Pre-Law Curriculum.**

A student enrolled in The College of Business Administration who wishes to prepare himself for entrance to law school will qualify for the Bachelor of Business Administration degree. Any major in The College of Business Administration may be selected, and the regular program for that major, as outlined in the catalog, should be followed.

### **Organization of the College.**

The College of Business Administration comprises six departments: Accountancy; Finance, Insurance and Real Estate; Economics; Management; Marketing; and Office Administration. These departments offer a variety of majors and minors, the detailed requirements for which are listed in the section beginning on page 168.

The college curriculum is organized into a lower division and an upper division:

THE LOWER DIVISION comprises the freshman and sophomore years, the first four semesters of University work. Courses offered in the lower division are numbered from 1000 through 2999, and the student must register consistently for all lower division requirements until they are completed.

THE UPPER DIVISION comprises the junior and senior years, the last four semesters of undergraduate work; courses offered in the upper division are numbered from 3000 through 4999.

### **Laboratory Facilities.**

The College of Business Administration provides 14 laboratories for development of facility in business: five accounting laboratories with individual tables for students; six secretarial laboratories, four for typewriting and two for general secretarial and office practice; one laboratory for data processing; one laboratory for statistics, equipped with adding machines and calculators; and laboratory work on electronic data computers. In addition the facilities of the Bureau of Business and Economic Research are available for research laboratory training.

## **Admission.**

Requirements for admission to The College of Business Administration are those set up for the University as a whole; see page 80.

A student who has attended another accredited college or university, or who has received correspondence and/or extension credit from such an institution, will be given credit for all acceptable residence work and for a maximum of 33 semester hours in acceptable correspondence and/or extension work. To be acceptable, a course must be approved by the Committee on Admissions and the quality point average must meet the minimum standards set by the University; see page 117 for details.

A student who transfers into The College of Business Administration from another degree-granting college of the University or from another educational institution will meet the requirements of the catalog in effect at the time of the transfer. Transfers from The University College of this University will meet the catalog requirements in effect at the time of entrance to the University, plus the requirements for entering this College.

## **Residence Requirements.**

Residence requirements for a degree in business administration are: the senior year's curriculum in business administration must be taken in residence. At least 33 hours of upper division business courses must be taken in residence; 12 of these hours must be in the major field.

University residence requirements are explained in detail on page 126.

## **Degree Requirements.**

The College of Business Administration offers the degree of Bachelor of Business Administration. To qualify for this degree the student must complete 132 semester hours with a quality point average of 2.0 (on a scale where A gives 4 quality points; B, 3; C, 2; and D, 1). Of the 132 semester hours required for graduation, at least 48 must be in business courses from the upper division (those numbered above 2999). A grade of C or better must be earned in every course applied toward satisfaction of the specific major and minor.

If a student transfers credit on business courses which are classified as upper division level courses at this college, but were taken as lower division credit or taken at a two-year institution, these courses will be repeated or other upper division business courses taken to replace them, with the approval of the department chairman of the major area.

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A grade of "I" on regular course work will be governed by the University policy on page 116.

General requirements for the degree include the successful completion of (I) required courses in the lower division (II) required courses in the upper division and (III) requirements for a major in The College of Business Administration. A student majoring in The College of Business Administration is not required to have a minor. A minimum of 40% of the hours required for the degree must be from outside business and economics (except for Principles of Economics) and a minimum of 40% of the hours required must be taken within the college. Requirements are outlined in detail in the sections which follow.

### I. REQUIRED COURSES IN THE LOWER DIVISION

(Figures in parentheses indicate semester hours credit. One-semester courses may be taken either semester.)

#### *First Semester*

English 1101 (3)  
Speech 1311 (3)  
A biological or physical science (3)  
Management 1010 (3)  
Physical Education (1)  
Air Force ROTC 1111  
(for men) (1)  
An elective course (3)

#### *Second Semester*

English 1102 (3)  
Mathematics 1203 or a more  
advanced level course (3)  
A biological or physical science (3)  
Psychology 1101 (3)  
Physical Education (1)  
Air Force ROTC 1112  
(for men) (2)  
An elective course (3)

### NOTES:

- Typewriting ability is a basic requirement. Every student will enroll in a typewriting class during his first semester in The College of Business Administration or arrange to take a proficiency examination. If he fails the proficiency examination, he must enroll in a typewriting class the following semester; he must pass either the typewriting course or the test before he arrives at junior classification.
- The science requirement must be met by a two-semester sequence course. If mathematics is used as a science, the six hours required must be of a more advanced level than the course taken to meet the basic mathematics requirement. The courses taken must be of progressively greater difficulty.
- Air Force ROTC is required of all men except those excused by the Professor of Aerospace Studies; for details see page 125.
- Mathematics 1203 or a more advanced level course must be taken to meet the minimum mathematics requirement in The College of Business Administration. Any student having three or more units of high school mathematics should take Mathematics 1203. If a student has had less than 2 units of high school mathematics, he should take Mathematics 1201 prior to attempting 1203. If a student has had two units of high school mathematics, it would be helpful to take Mathematics 1202 before Mathematics 1203.

#### *Third Semester*

Accounting 2010 (3)  
English 2101 (3)  
History 2601 (3)  
Economics 2110 (3)  
Physical Education (1)  
Air Force ROTC 2211  
(for men) (2)  
An elective course (3)

#### *Fourth Semester*

Accounting 2020 (3)  
English 2102 (3)  
History 2602 (3)  
Economics 2120 (3)  
Management 2711 (3)  
Physical Education (1)  
Air Force ROTC 2212  
(for men) (1)  
An elective course (3)

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### NOTES:

- a. The student planning to major in office administration may start shorthand in the sophomore year.
- b. Men taking Air Force ROTC 2211 and 2212 may be excused from two semesters of physical education.

### II. REQUIRED CORE COURSES IN THE UPPER DIVISION

Every student enrolled for the degree of Bachelor of Business Administration must complete successfully the following courses:

Economics 3610	Money and Banking (3)
FIR 3010-3020	Business Law I and II (6)
FIR 3410	Business Finance (3)
Management 3711	Business Statistics II (3)
Management 3110	Organization and Management (3)
Management 3750	Introduction to Data Processing (3)
Marketing 3010	Basic Marketing (3)
Office Administration 3510	Business Communications (3)

### III. THE MAJOR

With the assistance of his adviser, each student, not later than the beginning of his junior year, will select from the list below an area of specialization, called the major. After selecting his major the student will report to the dean of The College of Business Administration for assignment to a major professor in the department in which the major is offered. Listed below are the six departments of The College of Business Administration and the areas of specialization offered in each; the specific courses required by each department for the satisfaction of its majors are listed in the section beginning on page 168.

#### DEPARTMENT OF ACCOUNTANCY

##### DEPARTMENT OF FINANCE, INSURANCE, AND REAL ESTATE

Finance

Insurance

Real Estate

#### DEPARTMENT OF ECONOMICS

Economic theory and research

Quantitative economics

Economics of finance

Regional development

#### DEPARTMENT OF MANAGEMENT

General business management

Production management

Personnel administration and industrial relations

#### DEPARTMENT OF MARKETING

Advertising (Marketing Communications)

Marketing management

Industrial marketing and logistics

Retailing

Sales

#### DEPARTMENT OF OFFICE ADMINISTRATION

Office administration—secretarial

Office administration—management

## IV. THE MINOR

A student majoring in The College of Business Administration is not required to have a minor. A student majoring in one of the other colleges of the University may take a minor in one of the departmental areas.

## Departmental Requirements for Majors and Minors.

**DEPARTMENT OF ACCOUNTANCY:** The objective of the Department of Accountancy is to provide the graduate with a substantial background in accountancy which will enable him to adjust himself to any accounting situation and to advance rapidly in government, industry, or public accounting practice. The curriculum is designed to enable the student to achieve mastery of the generally accepted accounting principles and procedures as they are applied in all fields of accounting and to study modern accounting trends and techniques and the current controversial topics in his profession.

An accounting major or minor must have a grade of C or better in every course attempted in The Department of Accountancy.

*The Major:* Accounting 2720 (Laboratory) and 21 semester hours in upper-division accounting courses as follows:

3110 and 3120, Intermediate Accounting I and II  
3310, Cost Accounting  
4210, Advanced Accounting  
4240, Auditing  
4450, Accounting Systems  
4510, Federal Income Tax I

*The Minor:* For the student whose major is in another college of the University:

2010 and 2020, Fundamentals of Accounting  
2720, Accounting Laboratory  
3110, Intermediate Accounting I  
3120, Intermediate Accounting II  
Select one of the following:  
3010, Managerial Accounting or  
3310, Cost Accounting

## DEPARTMENT OF FINANCE, INSURANCE, AND REAL ESTATE

*The Major in Finance:* A minimum of 21 semester hours in upper-division courses as follows:

FIR 4610, Corporate Financial Problems  
Economics 4710, Financial Markets  
FIR 3710, Investments

Four additional upper-division courses selected with approval of the department chairman.

*The Minor in Finance:*

For the student whose major is within another college of the University:



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Accounting 2010 and 2020, Fundamentals of Accounting  
Economics 2110 and 2120, Economics I and II  
Economics 3610, Money and Banking  
FIR 3410, Business Finance  
Two additional approved upper-division courses.

*The Major in Insurance:* A minimum of 21 semester hours in upper-division courses, as follows:

FIR 3810, Principles of Risk and Insurance  
FIR 4810, Property and Casualty Insurance  
FIR 4820, Life and Health Insurance

A minimum of 12 semester hours in courses related to one of the following areas, selected with the approval of the department chairman:

Property and Casualty Insurance  
Life Insurance

*The Minor in Insurance:*

For the student whose major is within another college of the University:  
Accounting 2010, Fundamentals of Accounting  
Economics 2110, Economics I  
FIR 3010 and 3020, Business Law I and II  
FIR 3810, Principles of Risk and Insurance  
Two additional approved upper-division courses in Insurance.

*The Major in Real Estate:* A minimum of 21 semester hours in upper-division courses, as follows:

FIR 3310, Real Estate  
FIR 4310, Real Estate Law  
FIR 4320, Real Estate Finance  
FIR 4340, Real Estate Appraisal

A minimum of 9 semester hours selected with the approval of the department chairman:

*The Minor in Real Estate:*

For the student whose major is within another college of the University:  
Accounting 2010, Fundamentals of Accounting  
Economics 2110, Economics I  
FIR 3010 and 3020, Business Law I and II  
FIR 3310, Real Estate  
Two additional approved upper-division courses in Real Estate.

## DEPARTMENT OF ECONOMICS

*The Major in Economics (THE COLLEGE OF BUSINESS ADMINISTRATION):* a minimum of 21 semester hours in upper-division courses, as follows:

3210, Labor Economics  
4111, Economics of Business Enterprise  
3310, Microeconomic Theory  
3320, Macroeconomic Theory

Three additional upper-division courses selected with the approval of the department chairman.

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*The Major in Economics* (THE COLLEGE OF ARTS AND SCIENCES): the student will be required to meet the requirements for the Bachelor of Arts degree plus the specific major requirements:

2110, 2120, Economics I and II

3310, Microeconomic Theory

3320, Macroeconomic Theory

3610, Money and Banking

Management 3711 or Mathematics 2611 or 4611

Four additional upper-division courses, for a total of 30 semester hours, selected with the approval of the department chairman.

### *The Minor:*

For students whose major is in another college of the University:

Economics 2110 and 2120, Economics I and II

Economics 3310, Microeconomic Theory or 3320, Macroeconomic Theory

Economics 3610, Money and Banking

Two additional approved upper-division courses

## DEPARTMENT OF MANAGEMENT

*The Major in Management:* a minimum of 21 semester hours in upper-division courses, as follows:

Management 4420, Human Relations in Business FIR 4610, Corporate Financial Problems

Management 4410, Management of Business Enterprise

A minimum of 12 semester hours in courses related to one of the following areas, selected with the approval of the department chairman:

General business management

Production management

Personnel administration and industrial relations

### *The Minor in Management:*

For the student whose major is in another college of the University:

Accounting 2010 and 2020, Fundamentals of Accounting

Economics 2110 and 2120, Economics I and II

Economics 3610, Money and Banking

FIR 3410, Business Finance

Management 3110, Organization and Management

One approved upper-division course in Management.

**DEPARTMENT OF MARKETING:** The objective of the Department of Marketing is to provide the student with a broad concept of the marketing process and to develop an understanding of all the factors involved in the assembly and distribution of goods and services.

By careful selection of electives, the marketing major may become certified to teach distributive education in high schools, technical institutes, and junior colleges. See page 128 for details of certification requirements, page 180 for additional information on distributive education.

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*The Major:* a minimum of 21 semester hours in upper-division marketing courses, as follows:

- 3011, Marketing Systems
- 3012, Marketing Promotions
- 4010, Marketing Administration
- 4080, Marketing Research

Three additional courses in one of the marketing areas listed below:

ADVERTISING (Marketing-Communications): designed to provide an understanding of mass communication media, advertising agencies, advertising departments, advertising decisions, and other advertising activities.

- 3140 Advertising Fundamentals
- 3170 Advertising Problems
- 4150 Advertising Media and Campaigns

INDUSTRIAL MARKETING AND LOGISTICS: designed to provide an understanding of the distribution system as it pertains to the flow of goods within and without the environment.

- 3210 Logistics Administration
- 3220 Industrial Marketing
- 4220 Purchasing

MARKETING MANAGEMENT: allows a concentration in marketing without specialization. (A minimum of 9 semester hours, at least 3 hours at the 4000 course level).

- 3140 Advertising Fundamentals
- 3210 Logistics Administration
- 3320 Retail Store Management
- 4410 Sales Management
- 4530 International Marketing

RETAILING: this major gives the student a background in the operation and management of retail establishments.

- 3320 Retail Fundamentals
- 3330 Retail Merchandising
- 4330 Credit and Collections

SALES: this major gives the student a thorough grounding in the field of sales from basic salesmanship through sales management; the subject matter is approached from both theoretical and practical aspects.

- 3410 Sales Fundamentals
- 4410 Sales Management
- 4420 Sales Training

ELECTIVES:

- 3430 Sales Promotion
- 4991 Marketing Internship

*The Minor:*

For the student whose major is in another college of the University:  
Accounting 2010 and Economics 2110; *and*

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Marketing 3010 and the 12-semester-hour marketing core; and one course from a specific area; or

Marketing 3010, 6 semester hours from the marketing core, and 9 semester hours from a specific area.

**DEPARTMENT OF OFFICE ADMINISTRATION:** The student planning to major in office administration will take in his freshman year Office Administration 1210 and 1220, Elementary Typewriting and Intermediate Typewriting. If he has had previous training in typewriting, he will omit 1210 and take 1220 and a higher-numbered typewriting course, or one semester of an approved elective.

The student planning to major in office administration-secretarial will take, in his sophomore year Office Administration, 2120 and 2130, Fundamentals of Shorthand and Intermediate Shorthand. If he has had previous training in shorthand, he will omit 2120 and take 2130 and a higher-numbered shorthand course, or one semester of an approved elective. Students planning to major in office administration-management may omit shorthand from their programs.

No more than three courses (9 semester hours) in typewriting may be applied toward satisfaction of the degree requirements by a student with high school credit in typewriting.

Not more than 12 semester hours of the basic skill courses in typewriting and shorthand (Office Administration 1210, 1220, 3250, 2120, 2130, and 3140) may be applied on a B.B.A. degree.

A student must earn a grade of C or better in typewriting or shorthand courses before he can register for the next course in the subject.

*The Major in Office Administration-Secretarial:* a minimum of 21 semester hours of upper-division office administration courses, as follows:

3140, Advanced Shorthand I

3250, Advanced Typewriting

4270, Secretarial Typing and Office Machines

4320, Applied Secretarial Practice

4330, Records Management and Control

Two of the following courses, selected in conference with the department chairman:

4160, Secretarial Dictation

4400, Punched Card Methods

4401, Punched Card Applications

4410, Office Management I

*The Major in Office Administration-Management:* a minimum of 21 semester hours of upper-division courses as follows:

4330, Records Management and Control

4400, Punched Card Methods

4401, Punched Card Applications

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4410, Office Management I

Accounting 3010, Managerial Accounting

Two of the following courses, selected in conference with the department chairman:

Management 4210, Personnel Administration

Management 4410, Management of Business Enterprise

Management 4420, Human Relations in Business

Management 4750, Electronic Data Processing and Programming

FIR 4610, Corporate Financial Problems

Marketing 4330, Credit and Collections

Economics 4111, Economics of Business Enterprise

### *The Minor in Office Administration-Secretarial:*

For the student whose major is in another college of the University:

1210 and 1220, Elementary Typewriting and Intermediate Typewriting.

2120 and 2130, Fundamentals of Shorthand and Intermediate Shorthand.

3140, Advanced Shorthand.

Two or three additional approved upper-division courses in office administration.

(If the student can demonstrate proficiency in either typewriting or shorthand, he may omit either Office Administration 1210 or 2120, thus reducing the hours required for the minor from 21 to 18; a minimum of 18 semester hours is required.)

### *The Minor in Office Administration-Management*

For the student whose major is in another college of the University:

Accounting 2010 and 2020, Fundamentals of Accounting

Economics 2110 and 2120, Economics I and II

Office Administration 3510, Business Communications

Office Administration 4410, Office Management

Two additional upper-division courses in office administration approved by the department chairman.



# THE COLLEGE OF EDUCATION

SAM HOWARD JOHNSON, B.S., M.A., Ed.D., *Dean*

DEVROY A. RYAN, B.S., M.Ed., Ed.D., *Associate Dean*  
*Room 406, Education Building*

THE College of Education has as its objectives (1) to be an articulate part of the general and cultural program of the University; (2) to provide a program of teacher education which promotes the growth and development necessary for successful teaching; (3) to recruit desirable candidates for the teaching profession; (4) to assist in placing teachers; (5) to provide professional service to public schools in the service area; and (6) to develop and carry out a continuing program of educational research. Several curricula leading to the degree of Bachelor of Science in Education are available. Candidates for this degree take required and elective courses within The College of Education and, in preparation for teaching in certain areas, take courses in The College of Arts and Sciences and in The College of Business Administration. Students who wish to matriculate in the teacher education program must meet the special criteria of that program in addition to the general University admission requirements. Applications for admission to this program cannot be considered until the student has completed a minimum of one and one-half years of college work to the satisfaction of the faculty of The College of Education. For details see page 176.

## Accreditation.

The College of Education holds membership in the American Association of Colleges for Teacher Education. Its undergraduate programs for the preparation of elementary and secondary teachers are fully accredited by the National Council for Accreditation of Teacher Education.

## Organization of the College.

The College of Education comprises the following: Adult Education; Distributive Education; Educational Administration and Supervision; Elementary Education; Health, Physical Education, and Recreation; Home Economics; Secondary Education; and Special Education. The College of Education offers a program in business education through The College of Business Administration; Industrial Arts Education through Industrial Technology; and Music Education through the Department of Music.

These departments offer a variety of majors and minors, the detailed requirements for which are listed in the section beginning on page 180. The University Campus School, a public school comprising grades 1 through 6, is operated under the supervision of The College of Education.

The College of Education is organized into a lower division and an upper division.

THE LOWER DIVISION comprises the freshman and sophomore years, the first four semesters of University work; courses offered in the lower division are numbered from 1000 through 2999. In order to be admitted to the upper division, the student must have completed the work of the lower division with an average grade of C (2.0). In addition, he must have submitted to his adviser for approval a complete program of study for work in the upper division. Students who complete the work of the lower division with less than a C average will be given one additional semester in which to reach this standard. If, at the end of this additional semester, the student's average is below C, he will be advised to withdraw from the University.

THE UPPER DIVISION comprises the junior and senior years, the last four semesters of undergraduate work; courses offered in the upper division are numbered from 3000 through 4999. Students who have completed the required number of hours and the required residence to be classified as juniors, but who have not completed their basic requirements in the lower division, must schedule these uncompleted requirements during the first semester in which such courses are available. Forty-five semester hours are required in the upper division. In the upper and lower-division requirements no grade of less than C will be accepted in areas of endorsement (except in elementary certification) and in professional courses.

## **Bureau of Educational Research and Services.**

The Bureau of Educational Research and Services coordinates educational studies, surveys, evaluations, consultant activities and information for The College of Education. Emphasis is placed on team projects related to the needs of West Tennessee and the Mid-South area and conducted through the cooperative efforts of the faculty and students of The College of Education and educators in local school systems. The primary objective of the Bureau is service, with research playing a fundamental role in the extension of this service.

School systems, students, or any other interested person should confer with Dr. James W. Colmey, director of the Bureau, for information about opportunities for educational research and services.

### University Campus School.

The University Campus School, located east of The College of Education Building, is a public school comprising grades 1 through 6, operated by the University as a part of the public school system of the City of Memphis; it offers a broad program of training for approximately 700 students. This school serves the teacher education program as a laboratory in which prospective teachers observe and study, and where a limited number practice the art of teaching. Varied opportunities are offered University students to study children, to study a school program, and to participate in teaching activities. Through the Campus School arrangements have been made for the use of other city schools for purposes of teacher education. Student experiences with the teachers of the Campus School, and with other teachers in the area, are considered an integral part of preparation for a teaching career.

The University also conducts a Nursery and Kindergarten School, administered by the principal of the Campus School in cooperation with the Department of Elementary Education and the Department of Home Economics. The school is a non-profit institution, and tuition charges are determined by the cost of operation.

### Admission.

Requirements for admission to The College of Education are those set up for the University as a whole; see page 80.

### Admission to Teacher Education Program.

Students who enter Memphis State University for the first time after September 1, 1962, and who wish to prepare themselves for careers as teachers must make formal application for admission to the teacher education program during the second semester of the sophomore year. Students who transfer to Memphis State University after the completion of their sophomore year, or with more than 45 semester hours of credit, must make application during their first semester of residence at Memphis State.

The following factors will be considered by the screening committee in determining a student's eligibility for admission to the teacher education program: (1) academic aptitude; (2) academic achievement, (3) proficiency in English and mathematics, (4) health, (5) social adjustment, (6) communication skills, (7) interest in teaching, and (8) the desire to work effectively with students.

Once admitted to the teacher education program the student must maintain the standards required for admission. If the student

falls below any of these standards, his name will be removed from the file of students matriculated in teacher education and he will be advised of this action. He may then either try to bring his record up to a level suitable for re-admission or drop out of the teacher education program.

In order to be graduated and certified to teach, a student must (1) meet all standards established for admission to the teacher education program, (2) make formal application for and be admitted to that program, (3) complete all requirements for certification (outlined on page 128); and (4) complete all degree requirements in the college of the University in which he is enrolled.

All graduates of The College of Education must be qualified for a teaching certificate with the exception of the following programs which are not designed for a career in teaching: Dietetics, Child Development, Fashion Merchandising, Food Administration in the Department of Home Economics, and Recreation in the Department of Health, Physical Education, and Recreation.

No student will be enrolled for a course in student teaching until he has been admitted to the teacher education program and has met all the prerequisites for student teaching.

Application forms for admission to the teacher education program may be secured from the office of the dean of The College of Education, Room 404, Education Building. For a detailed explanation of all requirements, the student should consult with his adviser.

## Degree Requirements.

To qualify for the Bachelor of Science in Education degree the student must complete 132 semester hours with a grade point average of 2.0 (on a scale in which A has the quality point value of 4; B, 3; C, 2; and D, 1). Of the 132 semester hours required for graduation, at least 45 must be in courses from the upper division (those numbered above 2999).

At least 60 semester hours of the credit applied on the degree must be of liberal content. Courses in the following fields offered in The College of Arts and Sciences will meet this requirement: anthropology, art (non-applied), biology, chemistry, economics, English, geography, geology, history, journalism (non-applied), languages, mathematics, music (non-applied), philosophy, physics, political science, psychology, sociology, and speech. The following courses offered in The College of Education will meet this requirement: Education 2111, 4011, 4012, and 4021; Health 1102; Home Economics 1101, 1104, 2101, and 2202.

General requirements for the degree include the successful completion of (I) the general education program, (II) the pro-



fessional education program, (III) physical education activity courses, (IV) a major in The College of Education and (V) endorsement in two or more teaching areas. Elementary teachers meet only the endorsement required for elementary grades. These requirements are outlined in detail in the sections which follow.

I. THE GENERAL EDUCATION PROGRAM (45 semester hours)

*(Courses taken to meet the requirements of this section may, if applicable, be used to meet the requirements of Section V, below.)*

English 1101, 1102, 2101, and 2102

Health 1102

History 2601, 2602

Mathematics 1181 for elementary certificate; for secondary certificate

Mathematics 1111 or any higher-numbered mathematics course excluding Mathematics 1201 (Basic Mathematics)

Speech 2911 for elementary certificate; 1211 or 1311 or 1411 for secondary certificate.

Science: 9 semester hours (including one two-semester laboratory sequence course) in two of the following sciences: biology, chemistry, Geography 1101, 4111, 4121, 4122, 4131; geology, physics. (P. E. majors may take P. E. 3703 for second area).

One course (3 semester hours) in one of the following social sciences: anthropology, economics, geography (other than the earth science courses outlined above), political science, sociology.\*

One course (3 semester hours each) in the humanities to be chosen from one of the following departments: Art, Foreign Languages, Music, and Philosophy.

One of the following courses: Home Economics 1101, Psychology 1101, Sociology 1111.

II. THE PROFESSIONAL EDUCATION PROGRAM (27-33 semester hours)

Education 2011, 2111, 3121, and the courses in one of the following groups:

For the elementary certificate: Education 3241, 3251, 3261, 3271, 4242, and 4821.

For the secondary certificate: Education 4441, 4841, an appropriate secondary schools methods course, and 3 semester hours of elective applicable for secondary school teachers.

III. PHYSICAL EDUCATION ACTIVITY COURSES

Two to four semesters of physical education activity courses; for details see page 125.

IV. A MAJOR IN THE COLLEGE OF EDUCATION

The student will choose one of the following majors offered in The College of Education. The specific courses required for the satisfaction of these majors are listed in the following pages.

Distributive Education

Elementary Education

Health and Physical Education

Home Economics

Industrial Arts Education

Music Education

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\*May be used to satisfy only one area.



Recreation  
Secondary Education  
Special Education

#### V. CERTIFICATION IN TWO OR MORE TEACHING AREAS

The student must complete the requirements of individual departments for certification in the State of Tennessee in *two* or more teaching areas (combined minimum of 36 semester hours) with a 2.250 average in each, unless special exception is made by the dean of The College of Education. Elementary school teachers are required to meet only the endorsement for elementary grades. Specific course requirements for all of the endorsements offered in the University are listed in the section beginning on page 128.

### Directed Student Teaching.

Directed student teaching, offered in the University Campus School and in cooperating schools in the Memphis and Shelby County school systems, provides opportunities for observation of good teaching practices and for practical teaching experience under the direction of supervising teachers.

Students preparing to teach in the elementary schools are required to enroll for nine semester hours of student teaching to be done on an all-day basis for one half a semester. Students preparing to teach in the secondary schools are required to enroll for nine semester hours of student teaching to be done three hours daily for an entire semester, or all day for one half a semester. NOTE: *Students who enroll for student teaching on an all-day basis may not register for any other course which is scheduled to meet during the half-semester in which the student teaching is done.*

All teacher-education students will observe a professional semester when they are enrolled in student teaching. During this semester, only professional courses will be taken. Elementary teachers will complete Education 3241, 3251, and 3271 prior to the professional semester and enroll in Education 3261, 4242 and 4821 within the professional semester. Directed student teaching will be an all-day experience. Secondary teachers will complete the appropriate secondary methods course (Education 3321-3384) prior to the professional semester and Education 4441 and 4841 within the professional semester. Exceptions may be made to permit secondary teachers to enroll for the appropriate secondary methods course during the professional semester. Advisers may assign appropriate courses where indicated to complete the professional semester. Directed student teaching for secondary teachers will be done three hours daily for an entire semester, or on an all-day basis for one half of a semester.

Exception to the requirements for the professional semester

may be made when approved by the dean of The College of Education.

Requirements for enrolling in the student teaching program are as follows:

1. The filing of an application with the coordinator of student teaching during the semester prior to the one in which the student teaching is to be done. Applications for student teaching to be done in the fall semester must be filed by April 1; for the spring semester by October 15.
2. Classification as a senior or graduate student.
3. Completion of at least one semester of residence at Memphis State University.
4. An over-all average of at least 2.000; an average in education courses of at least 2.000; an average in the endorsement area of at least 2.250.
5. Completion of Education 2011, 2111, and 3121.
6. Completion of Education 3241, 3251, and 3271 (for those preparing to teach in elementary schools); Education 3211 and 3411 (for kindergarten); or the appropriate secondary methods course (for those preparing to teach in secondary schools).
7. Completion of either the elementary or secondary endorsement.
8. Approval by the applicant's adviser and by the coordinator of student teaching.

## Requirements for Majors and Minors.

DEPARTMENT OF DISTRIBUTIVE EDUCATION. The objectives of this department are (1) to train prospective teachers of distributive education programs in high schools, technical institutes, junior colleges, and adult-education programs (2) to provide graduate study and in-service education for distributive education teachers and supervisors (3) to conduct and direct research related to distributive education and (4) to develop instructional materials for use by distributive education teachers.

### *The Major in distributive education:*

Education 2011, 2111, 3121, and 4841.

Distributive Education 4610, 4630, 5640, and three semester hours of electives of distributive education or education 4301 or 4611

A minimum of 27 semester hours in marketing and business administration (specific courses to be chosen in conference with adviser)

Verified practical experience in a distributive occupation; *or* Marketing 4991

### *The Minor in distributive education:*

Education 2011, 2111, 3121, and 4841

Distributive Education 4630 and 3 additional semester hours in distributive education

10 semester hours in marketing and business management and verified practical experience in a distributive occupation; *or* Marketing 4991

DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND SUPERVISION. The Department of Educational Administration and Supervision does not offer courses at the undergraduate level leading to a degree program. Students who plan graduate study in this area should consult The Bulletin of The Graduate School.

DEPARTMENT OF ELEMENTARY EDUCATION. The Department of Elementary Education offers a major in elementary education and minors in elementary education and library service.

*The Major:*

ELEMENTARY EDUCATION: 33 semester hours, as follows: Education 2011, 2111, 3121, 3241, 3251, 3261, 3271, 4242, 4821 (9 semester hours); and completion of the requirements of general education and elementary grades endorsement area.

*The Minors:* A co-requisite for the minors listed below is the completion of the requirements for certification to teach in the State of Tennessee; these requirements are outlined in the section beginning on page 128.

ELEMENTARY EDUCATION: Same as elementary education major.

LIBRARY SERVICE: 18 semester hours in library service courses in conference with the adviser, plus certification in any area of either elementary or secondary education.

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, AND RECREATION. Majors and/or minors are offered in (1) health, (2) health and physical education, and (3) recreation. The recreation major will not satisfy teacher certification requirements nor any endorsement area in The College of Education.

*The Major in Health and Physical Education*

FOR MEN: 48 semester hours, as follows:

Health 1102, 1202, 2102 or 3502, 3102, 3202 (14 semester hours)

Physical Education 1101, 1121, 1131 or 1141, 1171, 1251, 1311, 1321  
1701, 3203, 3303, 3403, 3503, 3603, 3703, 3803, 4204, 4503 (30  
semester hours)

Two of the following courses: Physical Education 2103, 2203, 2303,  
2403, 2503 (4 semester hours)

Biology 1001, 1631, 1632

FOR WOMEN: 48 semester hours, as follows:

Health 1102, 1202, 2102, 3102, 3202 (14 semester hours)

Physical Education 1101, 1121, 1131 or 1141, 1171, 1221, 1251, 1271,  
1311, 1321, 3103, 3203, 3303, 3403, 3503, 3603, 3703, 4204, 4503  
(34 semester hours)

Biology 1001, 1631, 1632

Physical Education 3803 will be the methods class for majors in health and physical education in place of Education 3331. Health 3102 is the methods course for health endorsement in place of Education 3332. Majors in health and physical education take the methods course in the department and the elective education course is waived. A total of 24 hours is required in the Professional Education Program.

*\*The Major in Recreation*

General Education Program (56 or 57 semester hours)

English 1101, 1102, 2101, 2102

Health 1102, 2102

Biology 2002, 3240, and two of following: Biology 3050, 3600, 3940

History 2601, 2602

Psychology 1101, 1102

Sociology 1111, 2410

Anthropology 1200

Mathematics 1111, or 1131, or 1211

Related Areas of Study (24 semester hours)

Art 3411, 3531

Music 2231

Speech 1311

Drama (3 semester hours elective)

Education 2011, 2111, 3121

Professional Areas of Study (38 semester hours)

Physical Education 1101, 1141, 1221 (women), 1251, 1271 (women),  
1321, 1331, 1341 (men), 1351, 1701 (men), 3203, 3503, 3603

Recreation 3105, 3205, 3705, 3905, 4105, 4405, 4505, 4605

*The Minor in Health:* 27 semester hours, as follows:

Health 1102, 1202, 2102, 3102, 3202, 4802

Home Economics 2202

Biology 1631, 1632

*The Minor in Health and Physical Education*

FOR MEN: 35 semester hours, as follows:

Biology 1631 and 1632 (6 semester hours)

Health 1102, 2102 or 3502, 3102, 3202 (12 semester hours)

Physical Education 1101, 1251, 1311, 1321 (4 semester hours)

Physical Education 2103 or 2203 or 2303 or 2403, 3203, 3303, 3503,  
3603, 4503 (13 semester hours)

FOR WOMEN: 31 semester hours, as follows:

Biology 1631, 1632 (6 semester hours)

Health 1102, 2102, 3102, 3202 (12 semester hours)

Physical Education 1101, 1221, 1251, 1311, 1321 (5 semester hours)

Physical Education 3103, 3203, 3303, 3503, 3603, 4503 (14 semester  
hours)

## DEPARTMENT OF HOME ECONOMICS

A co-operative relationship exists between Memphis State University and the Merrill-Palmer Institute of Detroit, Michigan, whereby a second-semester junior or first-semester senior majoring in Home Economics-Child Development may enroll for one semester of study at Merrill-Palmer with the semester hours earned being transferred toward graduation at Memphis State.

\*See exception, page 177.

Majors in Home Economics are offered in the areas of Child Development, Dietetics, Food Administration, and Fashion Merchandising. Courses will be available in vocational home economics and teacher education when the program is officially approved.

*\*Child Development*

Home Economics Core Requirements: Home Economics 1100, 1101, 2101, 2202, 3405, 4100, 4103

Special Requirements for Child Development Area: Home Economics 3101, 3402, 4201, 4301, 4401.

Other Requirements: Art 3411; Psychology 1101, 1102, 3103, 3302; and 12 hours of electives in Home Economics

(Note: These requirements are in addition to University requirements and required courses of The College of Education).

*\*Dietetics*

Home Economics Core Requirements: Home Economics 1100, 1101, 2101, 2202, 3405, 4100, 4103

Special Requirements for Dietetics: Home Economics 2101, 3302, 3402, 3502, 3602, 4102, 4203, and 6 hours of electives in Home Economics

Other Requirements: Chemistry 1111, 1112, 3311, 3312, 4011; Biology 1632 and 3500; Accounting 2010 and 2020; Management 4210; Education 3121; Marketing 4220.

(Note: These requirements are in addition to University requirements and required courses of The College of Education).

*\*Fashion Merchandising*

Home Economics Core Requirements: Home Economics 1100, 1101, 2101, 2202, 3405, 4100, 4103

Special Requirements for Fashion Merchandising: Home Economics 1104, 1105, 2205, 3305, 3705, 4104, 4203, 4705

Other Requirements: (6 of 7 required\*) Management 1010; Accounting 2010, 2020; Marketing 3010, 3110, 3320, 3410

\*6 hours Economics as prerequisite for business administration courses

(Note: These requirements are in addition to University requirements and required courses of The College of Education).

*\*Food Administration*

Home Economics Core Requirements: Home Economics 1100, 1101, 2101, 2202, 3405, 4100, 4103

Special Requirements for Food Administration: Home Economics 2102, 3302, 3402, 3502, 3602

Other Requirements: Accountancy 2010 and 2020; Economics 2110 and 2120; Management 1010, 2711, 4210, 4420; Marketing 3010, 3410, 4220.

*The Minor:* 18 semester hours in home economics courses, including Home Economics 1104, 1105, 2101, 2102, 2202, and one course from the upper division.

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\*See exception, page 177.



## DIVISION OF INDUSTRIAL ARTS EDUCATION

This major is designed for students planning on a teaching career in Industrial Arts, with the emphasis on the secondary school program. Specific requirements for this major are:

Technology 1411, 1511, 1611, 1711, 1811, 1821, 2511, 2551, 2561, 2718, 2911, 3601, 4361, 4362

Education 2011, 2111, 3121, 3384, 4441, 4841 and 3-hour elective

Math 1212

Chemistry 1051

Physics 2111 and 2112

Speech 1311

Electives: 3-6 hours approved by adviser

Other general education program requirements of The College of Education  
Completion of requirements for endorsement in two of the following areas:

Drafting: 1551 and one 3-hour course as selected by adviser

Electricity-Electronics: 2821, 2831

Metal: Two 3-hour courses as selected by adviser

Wood: Two 3-hour courses as selected by adviser

## DIVISION OF MUSIC EDUCATION

## BACHELOR OF MUSIC EDUCATION:

*The Major:* The major requires the completion of (1) a group of basic music courses and (2) a group of courses in one of three concentration areas.

## 1. Basic Music (54 semester hours)

Music 1032 (and 1012), 1033 (and 1013), 2034 (and 2014), 2035 (and 2015), Music Theory I and II (16).

Music 1121, 1122, Introduction to Music (4).

Music Education 1312, Class Instruction in Brass (2).

Music Education 1711, 1712, Class Instruction in Strings (2).

Music Education 1912, Class Instruction in Woodwinds (2).

Music 3035, Orchestration (3).

Music 3131, 3132, History of Music (6).

Music 3236, Instrumental Conducting (3).

Education 3322, Materials and Methods in High School Music (3).

Music Education 4234, Materials and Methods in Music, Grades 7 through 9 (2).

Music Education 4235, Music Education: Principles and Programs (3).

Music ensembles: 8 semester hours of large ensembles including one semester of Music Education 1391, Music Education Band (8).

## 2. Concentration Areas (Choose a, b, or c.) See page 132 for further information on endorsements.

## a. School Music (vocal emphasis) (22 semester hours)

Class or individual instruction in voice or piano (4).

Music 0001 (semesters 7)

Individual lessons in major area (14).

Music 3601 for piano major, or Music 3801 for voice major, Recital (nc).

Music Education 4233, Materials and Methods in Music, Grades K through 6 (2).

Music Education 4236, Choral Materials, Literature, and Techniques (2).

b. Instrumental Music (24 semester hours)

Class or individual instruction in voice (2).

Class or individual instruction in piano (4).

Music 0001 (semesters 7)

Individual lessons in major area (14).

Music Education 1512, Class Instruction in Percussion (2).

Music 3301 (Brass), Music 3501 (Percussion), Music 3701 (Strings), or Music 3901 (Woodwinds), Recital (nc).

Music Education 4232, Materials and Methods in Instrumental Music (2).

c. General Music (24 semester hours)

Music 0001 (semesters 7)

Music 1310, 1510, 1710, or 1910, Individual lessons in band or orchestral instrument (4).

Music Education 1512, Class Instruction in Percussion (2).

Music 1610, Individual instruction in piano (4).

Music 1810, Individual instruction in voice (4).

Music 3310, 3510, 3610, 3710, 3810, 3910, Additional applied music at junior level (4).

Music Education 4232, Materials and Methods in Instrumental Music (2).

Music Education 4233, Materials and Methods in Music, Grades K through 6 (2).

Music Education 4236, Choral Materials, Literature and Techniques (2).

A graduation recital is not required.

*The Minor:* The minor requires the completion of (1) group of basic music courses and (2) a group of courses in one of two concentration areas.

1. Basic Music (22 semester hours)

Music 1121, 1122, Introduction to Music (4).

Music 1032 (and 1012), 1033 (and 1013), 2034 (and 2014), Music Theory (12).

Music 3035, Orchestration (3).

Music 3236, Instrumental Conducting (3).

2. Concentration Areas (Choose a or b or both)

a. School Music (vocal emphasis) (20 semester hours)

Music Education 4233, Materials and Methods in Music, Grades K through 6 (2 semester hours).

Music Education 4234, Materials and Methods in Music, Grades 7 through 9 (2 semester hours).

Music Education 4236, Choral Materials, Literature and Techniques (2 semester hours).

Applied Music (14 hours)

Music Education 1312, 1711, 1912, Class Instruction in Brass, Stringed, and Woodwind Instruments (5 semester hours).

Piano (Class instruction or individual lessons) 4 semester hours.

Voice (Class instruction or individual lessons) 4 semester hours.

Elective (Class instruction or individual lessons) 1 semester hour.

b. Instrumental Music (24 semester hours)

Music Education 4232, Materials and Methods in Instrumental Music (2 semester hours).

Music Education 4234, Materials and Methods in Music, Grades 7 through 9 (2 semester hours).

Music Education 4236, Choral Materials, Literature and Techniques (2 semester hours).

Applied Music (18 hours)

Music Education 1312, 1711, 1912, Class instruction in Brass, Stringed, and Woodwind Instruments (5 semester hours).

Piano (Class instruction or individual lessons) 4 semester hours.

Voice (Class instruction or individual lessons) 2 semester hours.

Individual lessons on one instrument of major emphasis, 6 semester hours.

Elective (percussion recommended) one semester hour.

**SECONDARY EDUCATION.** The Department of Secondary Education offers majors and minors in secondary education.

*The Major:*

SECONDARY EDUCATION: 27 semester hours, as follows:

Education 2011, 2111, 3121, 4441, 4841, one appropriate secondary school methods course, one elective appropriate for secondary school teachers, and completion of the requirements of general education and two endorsement areas.

*The Minor:* A co-requisite for the minor listed below is the completion of the requirements for certification to teach in the State of Tennessee; these requirements are outlined in the section beginning on page 128.

SECONDARY EDUCATION: Same as secondary education major except only one endorsement required.

**SPECIAL EDUCATION: Mental Retardation**

*The Major:* 33 semester hours, as follows:

SpEd 4000, 4501, 4510, 4521, 5512, 5513, Education 5511, SpEd 4541, 4542, and one elective from the following: SpEd 4201, 4531, 5516, or 5546.

*The Minor:* In conjunction with their curriculum adviser, students will elect those elementary or secondary courses which meet state certification for teachers of the Educable Mentally Retarded.

# THE HERFF COLLEGE OF ENGINEERING

ROGER EMERSON NOLTE, B.S., M.S., Ph.D., *Dean*

*Room 201-D Engineering Building*

The Herff College of Engineering is organized into Departments of Civil Engineering, Electrical Engineering, Geology, Mechanical Engineering, and the Division of Technology. Each offers a choice of specialized four-year programs leading to Bachelor of Science degrees and graduate programs.

The College's function is to serve the educational and research needs of the industrial community, the metropolitan area, the state, and the nation. It accomplishes this function by providing: (1) undergraduate professional education in the principal fields of engineering (2) undergraduate instruction for majors and minors in geology (3) undergraduate education in both technical and educational technology (4) graduate education in all areas (5) a program of continuing education for the engineering and technological practitioners of the area (6) assistance in the solution of industrial problems through utilization of physical facilities and the professional talents of faculty and students (7) a forum for the interchange of ideas and experiences among members of the industrial community through conferences, institutes and short courses and (8) an increase in the accumulation of knowledge in special fields of interest by a continuing program of study and research.

## Degrees Offered.

The Herff College of Engineering comprises five Departments: Civil Engineering, Electrical Engineering, Geology, Mechanical Engineering, and Technology.

All have four-year programs leading to the following degrees: Bachelor of Science in Civil Engineering, Bachelor of Science in Electrical Engineering, Bachelor of Science in Mechanical Engineering, Bachelor of Science in Geology, and Bachelor of Science in Technology.

A five-year program leading to the Master of Science degree is recommended for those students who demonstrate high scholastic abilities. For more information about graduate programs, refer to The Graduate School Bulletin.

## Admission of Freshmen and Transfer Students.

Requirements for admission to The Herff College of Engineering for freshmen and transfer students are those for the University as a whole (described on page 80). Students enroll for the first two years under The University College. University College counselors will direct the initial scheduling, including courses in major areas. In addition, freshman and sophomore students are encouraged to visit the various Departments, as well as the Dean of Engineering.

High school students, in planning for careers in one of the fields of engineering, should take advantage of preparatory courses. Since engineering is the application of mathematics and physical sciences to imaginative and useful systems, those courses should be emphasized in high school preparation. Courses are available at the University for those not fully prepared. Early enrollment in the summer terms offers excellent opportunity to remove any deficiencies that may exist.

## Degree Requirements.

The required curriculum, including elective specialties in each of the various programs, is described in detail on the following pages. General requirements include a minimum of 132 credit hours of approved coursework with a minimum quality point average of 2.0 (on a scale in which the grade of A has a quality point value of 4; B, 3; C, 2; and D, 1).

The following semester groupings represent the freshman and sophomore years which are common to civil, electrical, and mechanical engineering curricula.

Freshman Year								
Engl	1101	English Comp	3	Engl	1102	English Comp	3	
Math	1321	Anal Geom & Cal	4	Math	2321	Anal Geom & Cal	4	
Engr	1001	Intro to Engr	1	Phys	2511	Phys-Sci & Engr	4	
Engr	1011	Engr Compt Prog	2	Natural Science (See Note 1)				4
Engr	1021	Engr Graphics	2	Ph Ed 1---	Phys Activity			1
Chem	1111	Gen Chemistry	4	ROTC 1112	Aerospace			(1½)
Ph Ed	1001	Phys Activity	1					
ROTC 1111	Aerospace		(1½)					16 + (1½)
			<hr/>					
			17 + (1½)					
Sophomore Year								
Engl	2101	English Lit	3	Engl	2102	English Lit	3	
Math	2322	Anal Geom & Cal	4	Math	3391	Diff Equations	3	
Phys	2512	Phys-Sci & Engr	4	Elec	2201	Circuit Analysis I	4	
Civl	2131	Statics	3	Mech	2332	Dynamics	3	
Hist	2601	U. S. History	3	Hist	2602	U. S. History	3	
ROTC 2211	Aerospace		(1½)	ROTC 2212	Aerospace			(1½)
			<hr/>					
			17 + (1½)					
				<hr/>				
				16 + (1½)				

Note 1: To be selected from Chemistry 1112, Geology 1101, or Biology 1200, 1600, 1731.



## CIVIL ENGINEERING

The civil engineering program is built upon a foundation of mathematics, physical sciences, and mechanics with supporting courses in the humanities and social studies. The curriculum affords a detailed study of the fundamental principles which comprise the professional practice of civil engineering. Graduates are prepared to assume technical or administrative positions in the areas of planning, design, construction, and maintenance of all types of public and private civil engineering projects.

Areas of specialization include sanitary engineering; structural analysis and design; soil mechanics and foundation engineering; transportation engineering, and water resource engineering.

To qualify for the degree of Bachelor of Science in Civil Engineering a student must complete the curriculum outlined below. (For the freshman and sophomore years, see the common engineering requirements previously listed.)

## Junior Year

Civil 3101	Comp. Meth. In C.E.	3	Civil 3111	Field Measurements	3
Civil 3121	Struct. Analysis I	3	Civil 3131	Des. of Steel Struct.	3
Mech 3322	Mech. of Matl.	4	Mech 3361	Matl. Science	4
Mech 3311	Engr. Thermo.	3	Technical Elective (See Note 3)		3
Mech 3331	Mech. of Fluids	4	H & S Elective (See Note 2)		3
					<hr/>
					17
					<hr/>
					16

## Senior Year

Civil 4141	Hyd. & Water Supply	3	Civil 3141	Engr. Economics	3
Civil 4151	Soil Mechanics	4	Civil Engr. Elec. (See Note 4)		10
Civil 4161	Transport. Sys. Engr	3	Technical Elective (See Note 3)		3
Civil Engr. Elec. (See Note 4)		4			
H & S Elective (See Note 2)		3			
					<hr/>
					17
					<hr/>

Note 2: Humanities and Social Science course to be selected from approved list in consultation with adviser. A 6 or 9 hour sequence terminating in 3000 or 4000 level is required.

Note 3: Upper division course in Engineering, Mathematics, Physics, adviser's approval required.

Note 4: Upper division course in Civil Engineering such as—Civil 4121 Structural Analysis II, Civil 4135 Reinf. Concrete Design, Civil 4145 Waste Treatment, Civil 4152 Applied Soil, Civil 4191 Civil Engr. Projects I, Civil 4192, Civil Engr. Projects II. Adviser's approval required.

## ELECTRICAL ENGINEERING

Students enrolled in electrical engineering are offered a modern, well-balanced curriculum which is designed to provide a thorough background and understanding of the theoretical and physical principles of electric and magnetic phenomena. The concepts and techniques of mathematics and physics are applied in a wide variety of studies designed to guide the student into a career

which will enable him to contribute to the design, construction, and utilization of products which are beneficial to man. At the same time the curriculum provides adequate flexibility for the student to specialize in one of the many diverse and exciting areas of space age technology.

Laboratory facilities are available for a wide variety of instructional and research activities. These facilities are located in a new engineering building which provides the latest advances in equipment and facilities.

Graduates of this program may qualify for positions in development and design, research, sales, management, manufacturing, and construction. Some of the technical areas of opportunity lie in the design, development and use of analog and digital computers, communications systems, power generation and distribution systems, microwave and antenna systems, automatic control systems, and general instrumentation.

The Department of Electrical Engineering offers a Master of Science degree for those electrical engineers who desire advanced study in the areas of hybrid computers, microwave and antenna systems, communications systems, solid state electronics and automatic control systems.

The minimum requirements for the degree of Bachelor of Science in Electrical Engineering are: (for the freshman and sophomore years, see the common engineering requirements previously listed).

Junior Year					
Elec 3201	Circuit Analys II	4	Elec 3202	Transform Methds	3
Elec 3211	Electronics I	4	Elec 3212	Electronics II	4
Mech 3311	Engr. Thermo. I	3	Elec 4211	EM Field Theory I	3
Mech 3331	Mechanics (Fluids)	4	Technical Elec. (See Note 3)		3
Math Elective (See Note 5)		3	H & S Elective (See Note 2)		3
		<hr/>			<hr/>
		18			16
Senior Year					
Elec 4201	Energy Convers. I	4	Elec 4231	Communicat. Theory	3
Elec 4212	EM Field Theory II	4	Elec. Engr. Elec (See Note 4)		6
Elec. Engr. Elec (See Note 4)		3	Technical Elec. (See Note 3)		3
Technical Elec. (See Note 3)		3	H & S Elective (See Note 2)		3
H & S Elective (See Note 2)		3			<hr/>
		<hr/>			15
		17			

Note 2: Humanities and Social Science course to be selected from approved list in consultation with adviser. A 6 or 9 hour sequence terminating in 3000 or 4000 level is required.

Note 3: Upper division course in Engineering, Mathematics, Physics, adviser's approval required.

Note 4: Upper division course in Electrical Engineering, such as: Elec. 4221, Pulse and Digital circuits, Elec. 4241—Physical Electronics, Elec. 4251—Control Systems and Elec. 4991-4992, Elec. Engr. Projects. Adviser's approval required.

Note 5: Upper division course in Mathematics. Adviser's approval required.

- Note 2: Humanities and Social Science course to be selected from approved list in consultation with adviser. A 6 or 9 hour sequence terminating in 3000 or 4000 level is required.
- Note 3: Upper division course in Engineering, Mathematics, Physics. Adviser's approval required.

Note 4: Upper division course in Mechanical Engineering, such as: Mech. 3312 Engr. Thermo. II, Mech. 3381 Manufacturing Production Anal., Mech. 4312 Mechanical Power Gen., Mech. 4322 Mech. Design and Anal., Mech. 4331 Hydraulic and Turbo Mach., Mech. 4371 Mechanical Vibrations, and Mech. 4391-4392 Mech. Engr. Projects, etc. Adviser's approval required.

### GEOLOGY

The Department of Geology offers two undergraduate degrees: (1) a Bachelor of Science in Geology and (2) a Bachelor of Arts in Applied Science.

The Bachelor of Science in Geology—This major allows the student flexibility in that he can select a broad background in Geology, or he can select an area for emphasis which can be continued at the graduate level. In addition to the University requirements, detailed requirements are:

*The Major:* 36 semester hours in geology courses, including Geology 1101, 1201, 2311, 2312, 2512, 3211, 3311, 3712, 4622, and additional semester hours from the upper division as approved by the adviser.

Chemistry 1111 and 1112

Mathematics 1321

Physics 2511, 2512 or 2111, 2112

Non-technical electives: 30 hours which include:

- (a) Social Sciences: courses offered by the departments of sociology and anthropology, economics, geography (other than physical), history, philosophy, political science and psychology.
- (b) Humanities: courses offered by the departments of art, English, history, foreign languages, music, philosophy, psychology, and speech and drama.

These non-technical electives must include:

- (1) twelve semester hours in the Humanities, including at least six semester hours in one foreign language, either French, German, or Russian.
- (2) six semester hours in the social sciences and
- (3) twelve semester hours in any combination of upper division work in either or both of the fields chosen in (1) or (2).

Electives to bring the total to 132 hours. Electives are to be chosen only with the consent of the adviser.

*The Minor:* 18 semester hours in geology courses, including Geology 1101, 1201, and 10 additional hours.

Bachelor of Arts in Applied Science (the major in Geology)—The Bachelor of Arts in Applied Science in a pre-professional degree in Engineering Geology which provides more training in mathematics and engineering than the traditional degree in geology. In addition to university requirements, detailed requirements are:

*The Major:* Mathematics 1321, 2321, 2322, 3391, 4611

Chemistry 1111 and 1112

Physics 2511 and 2512

Engineering 1001, 1011, Mech 2332, Civil 2131

Geology 1101, 1201, 2311, 2312, 2512, 3712

Non-technical electives: 24 semester hours which include:

- (a) Social Sciences: Courses offered by the departments of sociology and anthropology, economics, geography (other than physical), history, philosophy, political science and psychology.
- (b) Humanities: Courses offered by the departments of art, English, history, foreign languages, music, philosophy, psychology, and speech and drama.

The non-technical electives must include:

- (1) six semester hours in the Humanities
- (2) six semester hours in the social sciences and
- (3) twelve semester hours in any combination of (a) upper division work in either or both of the fields chosen in (1) or (2) and (b) for those students desiring courses given by The College of Business Administration, courses in accounting, finance, management, or marketing.

Electives may be chosen only with the approval of the student's adviser. No courses in fields other than those indicated will be accepted without written approval of the dean.

Study of a foreign language is urged but not required. Those students electing a foreign language must comply with the general foreign language regulations of The College of Arts and Sciences.

### DIVISION OF TECHNOLOGY

The Division of Technology offers eight areas of specialization leading to the Bachelor of Science in Technology. These areas are Architectural Technology, Construction Technology, Drafting and Design Technology, Electronics Technology, Industrial Arts, Industrial Safety, Manufacturing Technology, and Forest Products Technology. The freshman and sophomore year curriculum requirements are outlined below with the specific exceptions from the core indicated through specific notes.

#### Freshman Year

Engl 1101	Engl Comp	3	Engl 1102	Engl Comp	3
Math 1212	Alg & Trig	3	Math 1321	Anal Geom & Cal	4
Tech 1411	Intro to Tech	3	(See Note 1)		
Tech 1511	Graphics I	3	Tech 1711	Mach Prod Tech	3
Tech 1611	Wood Indus	3	Engr 1011	Engr Compt Prog	2
ROTC 1111	Aerospace	1½	Chem 1111	Gen. Chem.	4
Ph Ed 1001	Phys Activity	1	ROTC 1112	Aerospace	1½
			Ph Ed 1---	Phys Activity	1
		17½			18½



## Sophomore Year

Engl 2101	Engl Lit	3	Engl 2102	Engl Lit	3
Phys 2111	Gen Phys	4	Phys 2112	Gen Phys	4
Tech 1811	Elec Tech I	3	Tech Elective (See Note 3)		3
Tech 2431	Tech Report Writ	3	Tech 2411	Inst & Test	3
	(See Note 2)			(See Note 4)	
Hist 2601	U.S. History	3	Hist 2602	U.S. History	3
ROTC 2211	Aerospace	1½	ROTC 2212	Aerospace	1½
		<hr/>			<hr/>
		17½			17½

Note 1: Industrial Arts take Health 1102.

Note 2: Industrial Arts students take Ed. 2011.

Note 3: Manufacturing, Drafting and Design take Tech 2511, Architectural and Construction take Tech 1451, Forest Products Technology take 2651; Electronics students take Tech 1821; Industrial Arts take 1821; Industrial Safety take Health 2102.

Note 4: Industrial Arts students take 2911; Architectural and Construction students take Tech 2555.

## ARCHITECTURAL TECHNOLOGY

This area is designed for students wishing to specialize in technology as it relates to architecture. Emphasis is placed on the technological and applied approach, with lesser emphasis on theory. Specific requirements for this major are as follows:

## Junior Year

Tech 3601	Wood Process	3	Tech 3520	Arch Drw. II	3
Tech 2511	Descriptive Geom.	3	Tech 3431	Masonry Prod	3
Tech 3411	Ind Materials	3	Tech 3521	Arch Models	3
Tech 3531	Mech Equip I	3	Tech 3532	Mech Equip II	3
Tech 4831	Comp Tech I	3	Tech 3400	Forces & Syst	3
Elective (General)		3	Elective (General)		3
		<hr/>			<hr/>
		18			18

## Senior Year

Tech 3471	Struc Design	3	Tech 4520	Bldg Const	3
Tech 3491	Estimating	3	Tech 4515	Arch Drawing III	3
Tech 3401	Strength of Mat	3	Tech 4944	Prob in Tech	3
Geo 4432	City Planning	3	Geo 4433	Urban Renewal	3
Elective (Technical) (Note 1)		6	Elective (Technical) (Note 1)		3
		<hr/>			<hr/>
		18			15

Note 1: Approval by adviser.

## CONSTRUCTION TECHNOLOGY

This area is designed for students who intend to enter the building construction industry, or a related field, as construction supervisors or project managers. Specific requirements are:

## Junior Year

FIR 3310	Real Estate	3	Tech 3411	Ind Materials	3
Tech 2511	Descriptive Geom.	3	Tech 3400	Forces & Syst	3
Tech 4831	Comp Tech I	3	Tech 3386	Ind Safety	3
Tech 3451	Route Surveying	3	FIR 3010	Business Law I	3
Tech 3531	Mech Equip I	3	Tech 3532	Mech Equip II	3
Elective (General)		3	Elective (General)		3
		<hr/>			<hr/>
		18			18

## Senior Year

Tech 3491	Estimating	3	Tech 4520	Bldg Const	3
Tech 3431	Masonry Prod	3	Tech 4944	Prob in Tech	3
Tech 3401	Strength of Mat.	3	Mgmt 4210	Personnel Adm	3
Tech 3387	Const Safety	3	Mgmt 3320	Labor Legis	3
Elective (Technical) (Note 1)		6	Elective (Technical) (Note 1)		3
		<hr/> 18			<hr/> 15

Note 1: Approval by adviser.

## DRAFTING AND DESIGN TECHNOLOGY

This area is designed for students interested in obtaining a position in industry as a designer, draftsman, or technical illustrator. Close contact is maintained with local industry in order to place classroom emphasis on current problems of design, drafting room practice, and problems. Specific requirements are as follows:

## Junior Year

Tech 1521	Graphics II	3	Tech 3401	Strength of Mater	3
Tech 3400	Forces & For Sys	3	Tech 2551	Indus Design	3
Tech 3411	Indus Mater	3	Tech 3386	Indus Safety	3
Mgmt 2711	Bus Stat I	3	Tech 4831	Comput Tech	3
Spch 1311	Pub Spkg	3		Approved Elective	3
	Approved Elective	3			
		<hr/> 18			<hr/> 15

## Senior Year

Tech 3471	Struc Design	3	Tech 3591	Tool Design	3
Tech 3421	Mfg Processes	3	Tech 4381	Prin of Superv	3
Tech 3571	Mach Design	3	Tech 3422	Mfg Process	3
Tech 3491	Estimating	3	Tech 4464	Prod Cont	3
Tech 4460	Mot & Time Anal	3	Tech 4511	Design Prob	3
	Approved Elective	3		Approved Elective	3
		<hr/> 18			<hr/> 18

## ELECTRONICS TECHNOLOGY

This area is designed for students interested in technology as it relates to electronics. It provides both theoretical and applied techniques as related to computer, quality control, radar, microwaves, instrumentation, technical writing, and other activities associated with electronics with emphasis on practical applications. Specific requirements for this area are as follows:

## Junior Year

Psyc 3301	Indus Organ Psy	3	Tech 4831	Comp. Tech I	3
Econ 2110	Prin of Econ	3	Econ 2120	Prin of Econ	3
Tech 2821	Electro Tech III	3	Tech 3811	Electro Commun	3
Tech 2831	Electro Tech IV	3	Tech 3821	Indus Electronics	3
Tech 3411	Indus Materials	3	Tech (Note 1)	Tech Elective	3
Tech (Note 1)	Tech Elective	3	Tech (Note 1)	Tech Elective	3
		<hr/> 18			<hr/> 18

## Senior Year

Tech 4832	Comp Tech II	3	Tech 4821	Microwave Tech	3
Tech 4381	Prin of Superv	3	Tech (Note 2)	Electronics Elec	3
Tech 4801	Antenna Tech	3	Tech (Note 1)	Tech Elective	3
Tech (Note 1)	Tech Elective	3	Tech (Note 1)	Tech Elective	3
Tech (Note 2)	Electro Elective	3	(Note 3)	General Elective	3
(Note 3)	General Elective	3			

18

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Note 1: Consult adviser for course to be selected from area of technology. All 18 technology elective hours may be from any one technology area or from a combination of technology areas applicable to student's interest.

Note 2: Consult adviser for course to be selected from the following:

Tech 3841 Advanced Applied Electricity

Tech 4833 Computer Technology III

Tech 4841 Video Communications

Note 3: Select any course of interest for which prerequisites are met.

## FOREST PRODUCTS TECHNOLOGY

This area is designed for students interested in the lumber industry with emphasis on the processing and use of lumber and wood products. Close contacts are maintained with local industry. The Memphis Lumberman's Club provides the services of an advisory committee, as well as guest speakers. And the National Hardwood Inspection School also cooperates with this program. Specific requirements for this area are as follows:

## Junior Year

Mgmt 2711	Bus Stat I	3	Tech 3611	Ind Woodwork	3
Tech 4831	Comp Tech I	3	Chem 1112	Gen Chem	4
Tech 3601	Prin of Wood Pro	3	Tech 4460	Motion & Time	3
Acct 2010	Fund of Acct.	3	Tech 3422	Metal Mfg. Pro	3
Econ 2110	Prin of Econ	3	Tech 3411	Ind Mater	3
Spch 1311	Prin of Pub Spk	3			

18

16

## Senior Year

Tech 3631	Forest Prod	3	Tech 4661	Forest Resour	3
Tech 4462	Inspec & Qual Co	3	Tech 4466	Plant Layout	3
Tech 4464	Prod Control	3	Tech 4944	Probl in Tech	3
Mgmt (Note 1)	Elective	6	Elective (Note 2)		3
Elective (Note 2)		3	Tech (Note 3)	Elective	3
Tech 3386	Ind. Safety	3	Tech (Note 3)	Elective	3

18

18

Note 1: Management elective with approval of adviser.

Note 2: General elective with approval of adviser.

Note 3: Technology elective with approval of adviser.

## INDUSTRIAL ARTS

This major is designed for students planning a teaching career in Industrial Arts, with the emphasis on the secondary school program. Specific requirements for this area are:

## Junior Year

Spch 1311	Prin of Publ Spk	3	Educ 3121	Psyc of Learn	3
Educ 2111	Human Gro & Dev	3	Psyc 1101	Gen Psychology I	3
Tech 2551	Industr Design	3	Tech 2561	Construc Design	3
Tech 2718	Welding & Foundry	3	Tech 4361	Organiz-Gen Shop	3
Tech 3601	Prin-Wood Process	3	Tech Elective (Note 2)		6
Tech 2511	Descrip Geom	3			
		18			

## Senior Year

Soc Sci Elective (Note 1)	3	Educ 4841	Dir Student Tea	9	
Educ 3384	Mater-Meth-HSIA	3	Educ 4441	Curr Prob & Tre	3
Educ Elective (Note 3)	3	Hum Elective (Note 4)		3	
Tech 4362	Gen Shop Appl	3			
Tech Elective (Note 2)	6				
	<hr/>				<hr/>
	18				15

Note 1: One course (3 semester hours) in one of the following social sciences: anthropology, economics, geography, political science, sociology.

Note 2: Completion of requirements for endorsement in two of the following areas: drafting, electricity/electronics, metals, woods.

Note 3: Elective must be applicable for secondary school teachers.

Note 4: One course (3 semester hours) in one of the following humanities: art, music, foreign languages, philosophy.

## INDUSTRIAL SAFETY

This major is designed for students planning to work in industry as directors of safety programs. Emphasis is placed, through an interdisciplinary approach, on the psychological and sociological significance of personalized safety procedures. Specific requirements for this area are as follows:

## Junior Year

Mgmt 2711	Bus Stat I	3	Mgmt 3711	Bus Stat II	3
Psyc 3301	Ind & Org Psyc	3	Educ 3335	Driver & Traf Saf	3
Tech 3386	Ind Safety	3	Tech 3387	Const Safety	3
Hlth 2102	Safety & Fir Ai	3	Tech 3422	Metal Manf Proc	3
Tech 4831	Comp Tech I	3	Tech 4460	Mot & Time Anal	3
Spch 1311	Bas Prin Pub Sp	3			
		18			

## Senior Year

Tech 4952	Chem Safety Pro	2	Tech 4944	Prob in Tech	3
Tech 3411	Indus Mater	2	Tech 4464	Production Cont	3
Tech 4381	Prin of Sup	3	Tech 4953	Elec Saft Probs I	2
Tech 4951	Fire Saf Prob	2	Tech 4954	Traf Saft Probs I	2
Elective (Note 1)	6		Elective (Note 1)	6	
		16			

Note 1: Electives to be approved by adviser.

## MANUFACTURING TECHNOLOGY

This area is designed for students interested in directing men, materials, and machines to efficient production in a manufacturing

situations. Emphasis is placed on manufacturing activities related to the engineer, scientist, and craftsman. Specific requirements for this area are as follows:

Junior Year					
Spch 1311	Bas Prin Pub Sp	3	Mgmt (Note 1) Elective		3
Acct 2010	Fund Of Acct	3	Tech 3386	Ind. Safety	3
Mgmt 2711	Bus Stat I	3	Tech 3401	Str. of Mat.	3
Psyc 3301	Ind & Org Psyc	3	Tech 3421	Mnfg. Proc.	3
Tech 3411	Ind Mat	3	Tech 3591	Tool Design	3
			Tech 4460	Motion & Time	3
<hr/>					<hr/>
15					18
Senior Year					
Mgmt (Note 1) Elective		3	Tech 4381	Prin. of Supv.	3
Tech 3422	Metal Mnfg. Pro.	3	Tech 4466	Plant Layout	3
Tech 3731	Metallurgy	3	Tech 4468	Prod. Meth.	3
Tech 4462	Ins. & Qual. Cont.	3	Tech (Note 2)		3
Tech 4464	Prod. Cont.	3	Elective (Note 2)		3
Elective (Note 2)		3			
<hr/>					<hr/>
18					15

Note 1: Management—approval of adviser.

Note 2: Approval of adviser.

## THE MINORS:

### INDUSTRIAL ARTS EDUCATION:

Technology 1511, 1611, 1711, 1811, 4361, 4362.

Nine additional semester hours in any one of the areas of drawing, electricity, electronics, metal, or wood as selected by adviser.

### SAFETY:

Technology 3386, 3387, 4951, 4952, 4953, 4954.

Health 2101

Psychology: 3 hours

Management 3810

Education 3335

### SURVEYING:

Geography 3501, 3511

Technology 1411, 1451, 1511, 2451, 2591, 3451

Mathematics 1212, 1321

### TECHNOLOGY:

Technology 1411, 1511, 1711, and 15 additional semester hours in technology courses, 9 semester hours of which must be from the upper division in one of the specific technology areas.



# THE SCHOOL OF LAW

ROBERT DOYLE COX, LL.B., LL.M., *Dean*

*Room 209, Law School Building*

THE School of Law offers a program of instruction leading to the degree of Juris Doctor. A student may enroll in a regular program, attending classes during the day, or in an extended program, attending classes in the evening. A student in the regular program may graduate in three academic years. A student in the extended program may graduate in four academic years plus work in summer sessions. A student regularly employed more than 20 hours per week may not pursue the regular program.

To be eligible for admission a student must have received a bachelor's degree in an appropriate discipline from an accredited college or university and must have made a satisfactory score on the Law School Admission Test administered by the Educational Testing Service, Princeton, New Jersey. Admission to The School of Law is on a selective basis.

Admission to advanced standing may be given to a student who qualifies for admission, and who is eligible for re-enrollment in the law school in which his previous work has been taken, provided that such school is on the approved list of the American Bar Association.

The successful completion of 84 semester hours work, including all required courses, with the prescribed grade average is necessary for graduation. The last 28 semester hours must be taken in this school.

The regulations and policies of The School of Law are set out in greater detail in a separate bulletin. Applications for admission must be made on forms supplied by The School of Law. Inquiries should be addressed to the Dean of The School of Law.

# THE DIVISION OF CONTINUING STUDIES

WILLIAM A. BROTHERTON, B.S., M.A., Ed.D., *Director*

*Room 134, Administration Building*

The Division of Continuing Studies offers five types of instructional services, supplementing the traditional full-time day program. Each of these services is designed to increase the availability of the faculty and the facilities of the University to individuals and groups in the Mid-South area.

## Evening Division.

Courses at night are offered in each of the colleges and schools of the University, at the main campus and the Joint University Center. A major objective is to provide instruction leading to baccalaureate degrees for those who, for a variety of reasons, are not able to attend classes during the daytime. Residence credit is granted. Programs include (a) formal courses for students already holding college degrees but desirous of further education (b) adult vocational-technical training for those seeking upgrading or change in employment (c) basic lower-division and pre-professional schools and (d) an extended general education for those interested in increasing their civic and social competence.

Admission requirements for evening courses are the same as those for the regular day program; they are outlined on page 80. For admission of Adult-Special students, see page 83. Standards of instruction and student performance are maintained at the same level established for the day program.

Fees for evening courses, for both part-time and full-time students, are the same as those in the day program; see page 88 for details. Students may arrange their schedules to take courses in both the day and evening programs without additional cost. Announcement of evening courses is made in the Schedule of Classes at the beginning of each semester.

## The Summer Session.

Consisting of two terms of approximately six weeks each, The Summer Session offers accelerated courses in all colleges, schools, and departments of the University. Students may earn 12 semester hours of graduate credit or 14 hours of undergraduate credit during the summer, with a maximum of six hours per term for

graduate students and seven semester hours per term for undergraduate students. Applicants for admission to The Summer Session may apply for one of several student classifications as defined in the Catalog. A transfer student who plans to attend Memphis State University *only* in The Summer Session need not submit complete transcripts from schools previously attended; he should request the registrar of the last college attended to mail a statement of good standing to the registrar of Memphis State University. This statement should include the student's classification.

The Bulletin of The Summer Session, containing the schedule of classes and information concerning registration procedures, fees, special events, etc., is issued in April of each year. Copies are available in the offices of the Dean of Admissions and the Director of Continuing Studies.

### Extension Division.

This is the official avenue through which services of the University are extended to areas off the campus. Both undergraduate and graduate courses are given at centers within the state where suitable advance arrangements are made. The subject matter of the extension courses is the same as that of courses taught on the campus, and grades received in these courses have the same quality value as do grades received in courses taught on the campus.

Candidates for degrees at Memphis State University may take a limited amount of work through The Extension Division; regulations governing the use of extension credit will be found on page 117.

Where circumstances justify, The Extension Division attempts to provide various types of help to organized groups within the University's service area. This assistance may take the form of such activities as conferences, public addresses, consultative service, and other types of school and community aid. Regularly employed staff members of the University are available for this service.

To the end that The Extension Division may continue to improve and expand its services to the people of the state, correspondence is invited with groups or individuals who are interested in any phase of its activities. Please address all inquiries and suggestions to The Extension Division.

### Conferences and Institutes.

This service provides non-credit programs in various vocational, technical, and general education fields. It assists state agencies,

educational institutions, recognized civic organizations, professional groups, and departments of the University in the development and presentation of conferences so as to provide a wide variety of educational opportunities for adults throughout the Mid-South.

The staff of the department will assist in planning programs, preparing and distributing printed materials, engaging speakers, handling registration, and other matters pertaining to conferences and institutes.

Professional, business and cultural groups who wish to avail themselves of the services of the teaching staff and the facilities of the University, either on or off the main campus, are welcome to schedule instructional meetings through the Department of Conferences and Institutes.

### **Special Interest, Non-Credit Courses.**

These classes are for men and women who have a particular interest in a subject and a desire to learn more about that subject but who do not wish to engage in the formalities of registration, grades and examinations. The courses offered do not duplicate credit courses which are described in the Catalog. Announcements of special interest, non-credit courses to be offered are issued before the beginning of each semester in a special brochure and through news media of the Mid-South.

# DIVISION OF URBAN AND REGIONAL STUDIES

ROBERT DUANE DEAN, B.A., M.A., Ph.D., *Director*  
*Old Brister Library*

The Division of Urban and Regional Studies was created at Memphis State University in the belief that a regional and urban university must make substantial contributions to the economic, social, and cultural growth of its state, the cities, and the region which it serves. The overall purpose of the Division is the mobilization and coordination of the efforts of different University agencies. The Division provides a center for interdisciplinary studies which serve communities, local and state governments, industries, and commercial firms. All of the agencies of the Division support industrial development organizations, chambers of commerce, and state and local governments in their efforts to benefit the economic development of Tennessee and the Mid-South.

Departments within the Division are the Bureau of Business and Economic Research, the Regional Economic Development Center, the Bureau of Public Administration, the Bureau of Social Research, the Institute for Urban Development, and the Regional Economics Library. The University Computer Center is an adjunct to the Division, and its full capability is available for any research undertaken. The Division may draw upon the resources of the total University faculty where and when special talent is needed; it also maintains consulting and working arrangements with private and public research organizations outside the University.

## Bureau of Business and Economic Research.

The Bureau of Business and Economic Research conducts research designed to contribute to economic and business knowledge. The primary emphasis of the Bureau effort is on Memphis, Tennessee, and the Mid-South. The Bureau has four specific functions:

1. To develop and disseminate data on current business and economic conditions.
2. To furnish to business concerns and governmental agencies special studies which will contribute to economic development.
3. To develop economic base studies for various counties and regions in an effort to help them plan the economic development of their area.



4. To train graduate students in business and economic research and to provide research facilities for faculty members.

### **Regional Economic Development Center.**

The Regional Economic Development Center reflects the University's growing concern about problems of regional economic development, and the belief that the University can play a leading role in shaping the future of the region it serves. The general objectives of the Center are to encourage new job creation within the community and to accelerate appropriate action by both the public and private sectors of the economy to stimulate private investment.

The Center provides services in the following specialized areas in Middle and West Tennessee and Shelby County:

1. Management counseling and assistance to small businessmen in every aspect of their firm's inception, development, and expansion.
2. Specialized research to determine the market feasibility of developing new products and using existing resources.
3. Assistance to local governments in making better use of developmental programs.
4. Training and seminars for industrial and community leaders and agencies to acquaint them with the developmental process.

### **Bureau of Public Administration.**

The Bureau of Public Administration conducts a continuous program of research seeking the application of new governmental management techniques to better the local governments in Shelby County, West Tennessee, and the Mid-South. The Bureau works closely with the faculty of other University units, especially the Departments of Political Science, Economics, Management, Accounting, and Sociology. The functions of the Bureau include the following:

1. To conduct basic and applied research in the various areas of Public Administration, such as governmental budgeting, purchasing, debt policy, property evaluation, and personnel management.
2. To render consulting services and advice upon the request of counties, municipalities, and other local governments.
3. To provide research experience in the area of public service

to graduate students, especially those interested in a public service career in Tennessee.

4. To conduct post-graduate and professional training programs, institutes, and seminars for those already in public service.
5. To provide information to local government officials and to periodically publish summaries and abstracts of articles describing improvements and new thought in scientific governmental management, methods, and procedures.

### **Bureau of Social Research.**

Research of this Bureau is designed to develop an awareness and knowledge of community social conditions and problems. The efforts of the Bureau of Social Research focus primarily on the Memphis metropolitan area, Tennessee and the general region influenced by the Memphis area. Specific functions are:

1. To conduct and publish research aimed at increasing the knowledge and understanding of the nature and demands of social life.
2. To provide expert advice and services for community agencies conducting research into social conditions and problems.
3. To aid community and University groups and individuals in the preparation of research proposals and the design of research projects.
4. To provide practical training and experience in research techniques and practices for students in the social sciences.
5. To provide the opportunity for faculty members of Memphis State University to acquire research experience.
6. To encourage interdisciplinary research in the social sciences with cooperation among sociologists, anthropologists, psychologists, political scientists, historians, and geographers.

### **Institute for Urban Development.**

The Institute for Urban Development analyzes basic problems of urban structure through continuing programs of research and extension. The Institute was established in response to the increasing demand that institutions of higher education become involved in the attempts to revitalize America's cities. The primary objective of the Institute, in its research and extension, is to aid citizens and public officials in their understanding and resolution of regional

urban problems. The major emphasis of the Institute program is Memphis and its immediate environs in West Tennessee and the Mid-South. In many cases, however, the activities of the Institute will have a broader scope and application. Research develops basic economic data, useful to local community development and planning organizations. The extension programs include workshops, seminars, conferences, and short courses designed to assist the public in the recognition of local problems and the construction of potential solutions. The accumulated data acquired by research will be developed into a data bank utilizing the University Computer Center for storage and retrieval of information.

### **Regional Economics Library.**

The Regional Economics Library services all departments of the Division of Urban and Regional Studies. The library contains approximately 20,000 books, censuses, periodicals, studies, and brochures, and has numerous files which contain statistical data provided by national, state, and local sources. In addition to regional economic data, there is also extensive information available on business, agriculture, labor, population, finance, government, and resources. Much of the data refers to conditions in Tennessee and the Mid-South, although other data are collected for comparison and study purposes. There is a working arrangement between this library and the main library of Memphis State University, and books and other information available in the Cossitt-Goodwyn Technical Library of Memphis can be obtained on a loan arrangement.

# THE DEPARTMENT OF AEROSPACE STUDIES

JAMES W. EVANS, JR., B.S., *Colonel*

*United States Air Force, Assistant Professor of Aerospace Studies  
Room 404, Jones Hall*

The Department of Aerospace Studies provides a four-year program of instruction divided into two phases, each of two years duration. The first, termed the General Military Course, offers instruction in the foundation of leadership and Aerospace-age citizenship. The second, termed the Professional Officer Course, builds upon these foundations in developing upperclassmen who are to become Air Force officers and serve on active duty upon graduation and commissioning.

Instruction in Aerospace Studies has been an important phase of the curriculum at Memphis State University since 1951. Active duty Air Force personnel, approved by the University President, are detailed by the Department of the Air Force to administer the instructional program. Air Force officers serve under appointment by the University as Professor or Assistant Professor of Aerospace Studies.

**THE GENERAL MILITARY COURSE:** The two-year (4 semesters) General Military Course consists of one hour a week of classroom instruction and one hour a week of Corps Training. Textbooks are furnished by the Air Force without charge. Uniforms for cadets are furnished by the University and are purchased from an allowance provided by the Air Force. The uniforms are the regulation uniforms of the United States Air Force and must be properly worn and kept in good condition. A uniform deposit is required for all cadets at the time of registration. Cadets who successfully complete the General Military Course may apply for admission to the Professional Officer Course (Advanced ROTC).

**THE PROFESSIONAL OFFICER COURSE:** The Professional Officer Course provides instruction and systematic training to selected eligible students who desire to qualify as officers in the United States Air Force while pursuing their academic studies at the University. Successful completion of the requirements for the Professional Officer Course and for a baccalaureate degree leads to a commission in the United States Air Force as a Second Lieutenant. To be eligible for selection to the Professional Officer Course, a student (undergraduate or graduate), must have successfully completed the General Military Course or its equivalent

(see the two-year program below for information about transfer and graduate students who were unable to complete the General Military Course). In addition, a cadet must have earned credit for at least 60 semester hours of academic work and be enrolled in his junior year with at least two years remaining at the University. Final selection is based on academic standing, leadership potential, percentile score on the Air Force Officer Qualifying Test, and physical qualifications. Senior cadets who are enrolled in the pilot category will engage in a flying program consisting of 36½ hours of flight instruction and 2 semester hours of Elementary Aeronautics (AS 4413). Members of the Professional Officer Course receive a subsistence allowance of \$50.00 per month and are issued uniforms provided by the University.

**THE TWO-YEAR PROGRAM:** Transfer and graduate students who were unable to complete the General Military Course, but who meet other qualifying criteria, may apply for selection to the Professional Officer Course under the Two-Year Program. Applications must be received not later than March 1 of each year. If selected, the student will attend a six-week field training encampment during the summer prior to entry into the Professional Officer Course. Graduates of the six-week field training are enrolled in the Professional Officer Course with the same status as cadets in the four-year program.

**BASIS FOR EXEMPTION FROM GENERAL MILITARY COURSE:** Normally students in the following categories are exempt from the University ROTC requirement: (1) A student who has completed the General Military Course or its Army or Navy ROTC equivalent at other schools (a transfer student admitted with 55 or more semester hours credit is exempt from the Aerospace Studies requirement); (2) veterans and certain members of the Armed Forces Reserve (members of the Reserve Forces may be exempt if they have served a period of at least four months continuous active duty); (3) a student who is medically or physically handicapped for any reason (the handicap must be verified by the University Health Center); (4) non-citizens. *NOTE:* Exemptions are not granted automatically. At registration, students must present fully documented evidence in support of a request for exemption.

**MILITARY DEFERMENTS:** All cadets enrolled in the Professional Officer Course are granted a military deferment. Cadets enrolled in the General Military Course whose academic standing, leadership potential, Air Force Officer Qualifying Test scores and medical qualifications meet entrance requirements, are granted a military deferment upon application for the Professional Officer Course. Deferments remain in effect as long as the cadet continues in good standing and is enrolled in the Air Force ROTC Program.



# THE DEPARTMENT OF NURSING

LOIS HOLLOMON, B.S.N., M.S.N., *Chairman*  
*Room 303, Clement Hall*

The Department of Nursing is an integral part of the University and functions within the general framework of its philosophy, purpose, and policies. The primary purpose of the Associate Degree in Nursing program is to provide educational experiences designed to prepare graduates to perform as beginning nurse practitioners. We believe that the education of nurses can best be accomplished in an institution of higher learning where a basic foundation in general education is shared with other college students. The blending of the arts and sciences with nursing courses will help the student to understand human behavior in health and illness and to identify health needs of patients.

A class is admitted annually in the fall semester. All applicants must receive acceptance to the University prior to applying for admission to the nursing program. In addition to the University admission procedure a student must submit an application to the nursing department and have a personal interview with a faculty member. To be considered for admission, a student must complete all of the above admission requirements before June 1 of the year in which admission is desired.

Nursing students are subject to the same fee schedule, expenses, and policies as are all other Memphis State University students. Hospitalization insurance and transportation to and from the various health agencies are the responsibility of the student. An additional expense of approximately \$100.00 is incurred by nursing students for uniforms. Loans and scholarships are available for nursing students.

The Department of Nursing is approved by the Tennessee Board of Nursing. The Department and the University hold agency membership in the National League for Nursing and the National League for Nursing Council of Associate Degree Programs.

## Requirements for Associate Degree

### FIRST YEAR

#### *First Semester*

Biology 1731 (4)  
Home Economics 2202 (3)  
English 1101 (3)  
Psychology 1101 (3)

#### *Second Semester*

Biology 1732 (4)  
Physical Education (any 1000 course)  
(1)  
English 1102 (3)

Nursing 1001 (5)

Psychology 1102 (3)

Nursing 1002 (5)

*Summer Session, First Term*

Nursing 2102 (5)

## SECOND YEAR

*First Semester*

Biology 1400 (4)

Sociology 1111 (3)

Nursing 2110 (10)

*Second Semester*

\*Elective (3)

\*\*Elective (3)

Nursing 2111 (10)

Nursing 2201 (1)

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\*Speech 1311 or 1011, or Art 1101, or Music 1131, if Speech was taken in High School.

\*\*History 1301, 1302 or Political Science 1101.

*Lecture sessions in chemistry (opposite page) and other sciences are supplemented by laboratory study. Courses are offered in many academic disciplines and areas of the University.*

IB	IIA	IIIA	IVA	VA	VIA	VIIA	0
							2 He 4.0
	5 B 10.8	6 C 12.0	7 N 14.0	8 O 16.0	9 F 19.0	10 Ne 20.2	
	13 Al 27.0	14 Si 28.0	15 P 31.0	16 S 32.1	17 Cl 35.5	18 Ar 39.9	
30 Zn 65.4	31 Ga 69.7	32 Ge 72.6	33 As 74.9	34 Se 79.0	35 Br 79.9	36 Kr 83.8	
48 Cd 112.4	49 In 114.8	50 Sn 118.7	51 Sb 121.8	52 Te 127.6	53 I 126.9	54 Xe 131.3	
80 Hg 200.6	81 Tl 204.4	82 Pb 207.2	83 Bi 209.0	84 Po (210)	85 At (210)	86 Rn (222)	
65 Tb 158.9	66 Dy 162.5	67 Ho 164.9	68 Er 167.3	69 Tm 168.9	70 Yb 173.0	71 Lu 175.0	
97 Bk (249)	98 Cf (251)	99 Es (254)	100 Fm (253)	101 Md (256)	102 No (254)	103 Lw (257)	

# Description of Courses

9



THE SECTION which follows contains an alphabetical listing of all departments in the University and a description of all course offerings. The official course title appears in bold-face type following the course number. The figures in parentheses after the description of a course denote the number of semester hours of credit for that course. If the credit is variable, to be fixed in consultation with the instructor, that fact is indicated by the minimum and maximum credit, as Biology 4000 (2 to 4).

Courses are numbered according to the following system:

1000-1999	<i>Courses primarily for freshmen</i>	(formerly 100-199)
2000-2999	<i>Courses primarily for sophomores</i>	(formerly 200-299)
3000-3999	<i>Courses primarily for juniors</i>	(formerly 300-399)
4000-4999	<i>Courses primarily for seniors and for which graduate credit is not offered</i>	(formerly 400-499)
5000-5999	<i>Courses offered in The Graduate School but open to seniors within 36 semester hours of graduation</i>	(formerly S500-S599)
6000-6999	<i>Senior courses open to graduate students</i>	(formerly G400-G499)
7000-7999	<i>Courses open only to graduate students</i>	(formerly 500-599)

Course numbers have no reference to the semester in which the courses are taught.

The Schedule of Classes is published a few weeks prior to the opening of each semester and The Summer Session. It contains a listing of the specific courses to be offered, with the time, place, and instructor in charge of each section. It also contains special announcements concerning registration procedures. Copies are available in the office of the Dean of Admissions and Records.

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#### IMPORTANT NOTICE

All courses in the curriculum were renumbered in the 1965-66 catalog according to a four-digit system. The three-digit figure in parentheses at the extreme right of the course title indicates the number which that course carried in the 1964-65 catalog.

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# ACCOUNTANCY

PROFESSOR JAMES THOMAS THOMPSON, *Chairman*  
*Room 103, The College of Business Administration Building*

Requirements for the major and minor in accountancy are listed on page 168.

- 2010. Fundamentals of Accounting I. (3). (201)**  
 Basic principles, journalizing and posting, the accounting cycle, accruals and deferments, valuation accounts, special journals including the voucher register. Both semesters.
- 2020. Fundamentals of Accounting II. (3). (202)**  
 Payrolls, taxation, partnership, corporations, further applications of accounting theory. Both semesters. PREREQUISITE: Accounting 2010.
- 2720. Accounting Laboratory. (1). (272)**  
 The working of a practice set involving current accounting practice. Both semesters. PREREQUISITE: Accounting 2010.
- 3010. Managerial Accounting. (3). (311)**  
 The study of accounting as it relates to managerial control. Topics studied include financial statement analysis including price level changes, cost controls, budgeting, quantitative accounting techniques for decision making in management. Both semesters. PREREQUISITE: Accounting 2020 or permission of department chairman.
- 3110. Intermediate Accounting I. (3). (311)**  
 Accounting records, end-of-period procedure, corrections of prior periods, accounting statements, comparative statements, working capital, miscellaneous ratios, profit and loss analysis, corporations. Both semesters. PREREQUISITE: Accounting 2020.
- 3120. Intermediate Accounting II. (3). (312)**  
 Cash and receivables, inventories, tangible operating assets, intangibles, investments, liabilities, reserves and valuation accounts, net income determination, statement of source and application of funds. Both semesters. PREREQUISITE: Accounting 3110.
- 3310. Cost Accounting. (3). (331)**  
 Material inventory records, inventory evaluation, accounting for labor, distribution of manufacturing costs, introduction to job order, process and standard costs. Both semesters. PREREQUISITE: Accounting 2020.
- 4210. Advanced Accounting. (3). (421)**  
 Partnerships, consignments, installment sales, insurance, statement of affairs, receiver's accounts, statement of realization and liquidation, annuities, and introduction to consolidations. Fall semester. PREREQUISITE: Accounting 3120.
- 4220. Consolidated Financial Statements. (3). (422)**  
 Consolidations, mergers, foreign exchange. Spring semester. PREREQUISITE: Accounting 4210.
- 4240. Auditing. (3). (424)**  
 Ethics in accounting practices. internal control, auditing standards and procedures, programs of audit of various accounts, construction and indexing of various papers, reports to clients, a practice audit is carried out. Fall semester. PREREQUISITE: Accounting 3120, 3310.



**4251. Readings in Auditing. (3).**

Auditing theory, standards and procedures, case studies applicable to specific industries, current trends, study of American Institute of Certified Public Accountants releases pertaining to auditing. Spring semester. PREREQUISITE: Accounting 4240.

**4450. Accounting Systems. (3). (445)**

Problems involved in designing accounting systems for various types of business, including processing accounting data by electronic computer. Spring semester. PREREQUISITE: Accounting 3120, 3310, and Management 3750.

**4510. Federal Income Tax I. (3). (451)**

Regulations pertaining to individuals and partnerships; installment and deferred payment sales; introduction to corporate taxation. Fall semester. PREREQUISITE: Accounting 3120 or permission of the instructor.

**4520. Federal Income Tax II. (3). (452)**

Laws and regulations for corporations, estates, and fiduciaries. Spring semester. PREREQUISITE: Accounting 4510.

**4540. Governmental Accounting. (3). (454)**

Accounting theory and practice applicable to federal, state, and local government; and to nonprofit institutions; budgetary control; control, classification, and use of funds; financial statements and reports. Fall semester, PREREQUISITE: Accounting 3120.

**4810. Internship in Accounting. (3).**

Seniors majoring in public accounting, after receiving approval of the accounting faculty, are placed in offices of cooperating public accounting firms to receive on-the-job training under the direct supervision of a certified public accountant and the general supervision of the University accounting staff. Credit is allowed upon acceptance of report of work done, verified by supervising accountant, and completion of a qualifying examination. Minimum time: 500 hours. Both semesters. PREREQUISITE: Senior standing.

*Graduate Courses in Accountancy: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

## AEROSPACE STUDIES

COLONEL JAMES W. EVANS, JR.

*Assistant Professor of Aerospace Studies*

*Room 404, Jones Hall*

Details of the Air Force ROTC program are on page 207.

**1111. World Military Systems. (1½).**

An introductory course exploring the causes of the present world conflict, the role and relationship of military power to that conflict, and the responsibilities of an Air Force Officer; this includes a study of the interrelationship of national power factors; a comparative analysis of the Democratic, Fascist, and Communist ideologies; patterns of conflict relative to the confrontation between opposing ideologies; and the role of military power as a facet of national policy. A study of world military

forces is begun through treatment of the U.S. Department of Defense and the doctrine, mission and functions of the United States Air Force.

*One class hour per week and one hour of Corps Training.*

**1112. World Military Systems. (1½).**

A continuation of Aerospace Studies 1111.

*One class hour per week and one hour of Corps Training.*

**2211. World Military Systems. (1½).**

A continuation of the study of world military forces and the political-military issues surrounding the existence of these forces. This includes a study of the United States Army and the United States Navy, their doctrines, missions and employment concepts; a study of the military forces of NATO, CENTO, SEATO, and their role in free world security; and an investigation of the military forces of the USSR, the Soviet Satellite Armies, and the Chinese Communist Army. This course concludes with an analysis of the trends and implications of world military power.

*One class hour per week and one hour of Corps Training.*

**2212. World Military Systems. (1½).**

A continuation of Aerospace Studies 2211.

*One class hour per week and one hour of Corps Training.*

### PROFESSIONAL OFFICER COURSE

**3311. Growth and Development of Aerospace Power. (3).**

A survey course concerned with the development of airpower in the United States; mission and organization of the Defense Department; Air Force concepts, doctrine, and employment; astronautics and space operations; and the future development of aerospace power.

*Three class hours per week and one hour of Corps Training.*

**3312. Growth and Development of Aerospace Power. (3).**

A continuation of Aerospace Studies 3311.

*Three class hours per week and one hour of Corps Training.*

**4411. The Professional Officer. (3).**

A study of professionalism, leadership and management. This study includes the meaning of professionalism, professional responsibilities, the military justice system; leadership theory, functions and practices; management principles and functions; problem solving; and management tools, practices and controls.

*Three class hours per week and one hour of Corps Training.*

**4412. The Professional Officer. (3).**

A continuation of Aerospace Studies 4411.

*Three class hours per week and one hour of Corps Training.*

**4413. Elementary Aeronautics. (2).**

An introduction to aviation and the fundamental principles of flight; basic meteorology and its applications to aviation; use of navigation computers, instruments, and radio aids; basic regulations governing airmen, aircraft operations, and flight safety. This course is designed to prepare for the FAA Private Pilot Written Examination. PREREQUISITE: Aerospace Studies 3311 and 3312, or permission of the Professor of Aerospace Studies.

*Three class hours per week.*

# ANTHROPOLOGY

(See SOCIOLOGY AND ANTHROPOLOGY)

## ART

PROFESSOR DANA DOANE JOHNSON, *Chairman*  
*Room 310, Jones Hall*

Requirements for the major and minor in art are listed on page 152; the program for the Bachelor of Fine Arts degree is outlined on page 143.

- 1101. Introduction to Art. (3). (111)**  
 An introduction to the fundamental principles of the fine arts, aimed at providing an understanding of art products and processes as a basis for judgment and enjoyment of all types of art expression.
- 1201. Basic Design. (3). (121)**  
 An introduction to design as a basic factor in creative expression.
- 1204. Color Fundamentals. (3). (122)**  
 A Modern approach to the study of color, its use and enjoyment. **PREREQUISITE:** Art 1201.
- 1211. Basic Lettering. (3). (113)**  
 Fundamental letter construction, the history of alphabets, and the effects of tools and materials upon individual letter forms, with problems in hand lettering in both pen and brush techniques.
- 1311. Beginning Drawing. (3). (115)**  
 An introduction to the materials and techniques of basic drawing.
- 1314. Figure Structure. (3). (116)**  
 Analysis of the structure of the human figure with emphasis on contour, gesture, and volume. **PREREQUISITE:** Art 1311.
- 2101. World Art I. (3).**  
 The development of the visual arts from prehistoric times through the medieval period; their use by man as a social, cultural, and educational force; brief survey of the art of the Far East.
- 2102. World Art II. (3).**  
 Continues (but does not presuppose) World Art I; a survey of the development of the visual arts from the medieval period through the Renaissance to the present.
- 2201. Design. (3).**  
 A continued study of the elements of design, using a variety of materials and methods. **PREREQUISITE:** Art 1201 and 1204, or permission of the instructor.
- 2202. Design. (3).**  
 A continuation of Art 2201, with attention given to three-dimensional problems in design. **PREREQUISITE:** Art 2201, or permission of the instructor.
- 2213. Lettering and Layout. (3). (207)**  
 Practical problems involving lettering and layout.

- 2221. Graphic Production. (3).**  
The preparation of copy for photomechanical reproduction: printing processes, halftone and line reproduction, the selection and use of type and paper.  
*Six studio hours per week.*
- 2231. Interior Design. (3). (215)**  
A survey of the field of interior design and some of its underlying principles. PREREQUISITE: Art 1204.
- 2232. Interior Design. (3).**  
A continuation of Art 2231, with emphasis on spatial relations. PREREQUISITE: Art 2231, or permission of the instructor.
- 2311. Perspective. (3). (214)**  
Theory and practice of perspective projection and its various applications.
- 2313. Drawing. (3).**  
Advanced problems of communication through exploration of varied graphic media and methods. PREREQUISITE: Art 1311 and 1314, or permission of the instructor.
- 2314. Drawing. (3).**  
A continuation of Art 2313, with emphasis on personal expression. PREREQUISITE: Art 2313, or permission of the instructor.
- 2321. Drawing and Painting. (3). (213)**  
Theory and practice in drawing and painting in various media.
- 2351. Printmaking. (3).**  
An introduction to basic printmaking processes: relief, intaglio, planographic.
- 2511. Sculpture. (3). (231)**  
An introduction to the basic materials and techniques of sculpture.
- 3101. History of Interior Architecture and Furniture. (3).**  
Survey of interior architecture, furniture design, and decorative arts from the Egyptian era to the 18th century.
- 3102. History of Interior Architecture and Furniture. (3).**  
Survey of interior architecture, furniture design, and decorative arts from the 18th century to the present day.
- 3121. Ancient Art. (3). (337)**  
A study of architecture, sculpture, painting and the minor arts from prehistoric times to the fall of the Roman Empire, including Egyptian, Sumerian, Greek, and Roman art.
- 3161. Art in America I. (3). (313)**  
The development of American art including architecture, sculpture, painting, and the minor arts from pre-Columbian times to 1893.
- 3162. Art in America II. (3).**  
A continuation of Art 3161, dealing with architecture, sculpture, and painting in America from 1893 to the present.
- 3221. Graphic Design. (3). (315)**  
An introduction to the methods and techniques of advertising layout,

with practical problems involving roughs, presentation, and finished art work.

- 3222. Graphic Design. (3). (316)**  
A continuation of Art 3221, offering further study in the techniques of newspaper, magazine, and direct-mail layout.
- 3223. Packaging and Display. (3). (323)**  
A study of package designing and display techniques.
- 3231. Interior Design. (3). (317)**  
Practical problems in interior architecture and design. **PREREQUISITE:** Art 2232 or permission of instructor.
- 3232. Interior Design. (3). (318)**  
A continuation of Art 3231, offering further study in interior organization and the designing of residential and commercial interiors. **PREREQUISITE:** Art 3231 or permission of instructor.
- 3331. Oil. (3). (333)**  
A preliminary course in the theory and practice of oil painting.
- 3332. Oil. (3). (334)**  
A continuation of Art 3331 with special attention given to the essentials of still-life, landscape, and portrait painting.
- 3333. Synthetic Media. (3). (331)**  
Theory and practice in synthetic media.
- 3334. Synthetic Media. (3). (332)**  
A continuation of Art 3333 with emphasis on further development of techniques.
- 3351. Printmaking. (3). (335)**  
A continued study in the graphic arts with further emphasis on woodcut and etching. **PREREQUISITES:** Art 2351, or permission of the instructor.
- 3352. Printmaking. (3). (336)**  
A continuation of Art 3351 with emphasis turning to personal expression. **PREREQUISITES:** Art 2351 and 3351, or permission of the instructor.
- 3411. Art Experiences for Elementary Teachers. (3). (301)**  
An introductory course in the development of skills and methods in the school art program, with emphasis on materials and ideas important to children's art expression and growth.
- 3413. Materials and Methods in Teaching Elementary School Art. (3). (301)**  
Designed to aid future teachers in understanding child art, encouraging art expression, and preparing art teaching materials for children. **PREREQUISITE:** Art 1101 (or 2101 and 2102) and 3411.
- 3421. Art Experiences for Secondary School Art Teachers. (3). (301)**  
Designed to familiarize secondary art teachers with art crafts in a secondary school art program and to allow them to work with equipment, supplies, processes, and ideas in an art craft program. **PREREQUISITE:** Art 2202 or 3411, or permission of the instructor.



- 3424. Textiles in the Secondary School Art Program. (3).**  
The place of textiles and textile designing in a secondary school art program, including work with equipment, supplies, processes, and ideas basic to a comprehensive textile craft course. **PREREQUISITE:** Art 3411 and 2202, or permission of the instructor.
- 3511. Sculpture. (3).**  
The problems of sculptural form as expressed in metal, wood, and related materials.
- 3512. Sculpture. (3).**  
A continuation of Art 3511 with further emphasis on techniques.
- 3513. Ceramic Sculpture. (3).**  
The problems of sculptural form as they relate to ceramic media.
- 3514. Ceramic Sculpture. (3).**  
A continuation of Art 3513 with further emphasis on techniques.
- 3521. Ceramics. (3). (339)**  
An introductory course in pottery-making, including hand forming and production processes using clays, plaster, and cements.
- 3522. Ceramics. (3). (340)**  
A continuation of Art 3521, offering further study in pottery-making and glazing with emphasis on design.
- 3531. Arts and Crafts. (3). (361)**  
Introductory arts and crafts, including leather and metal craft, weaving, and ceramics, as they relate to educational and recreational areas.
- 3541. Packaging and Display. (3). (324)**  
A continuation of Art 3223 with attention given to trademark designs, package renderings and practical displays.
- 4111. Prehistoric Art. (3).**  
An examination of the art products of the various Paleolithic, Mesolithic, Neolithic, Bronze, and Iron Age cultures, with emphasis given to Franco-Cantabrian Cave Paintings and Megalithic Architecture.
- 4131. Early Christian and Byzantine Art. (3).**  
The development of architecture, sculpture, and painting through the early medieval period, with emphasis on early Christian and Byzantine art.
- 4134. Romanesque and Gothic Art. (3).**  
The development of architecture, sculpture, and painting during the Romanesque and Gothic periods.
- 4141. Renaissance Art. (3). (411)**  
Western art and architecture from the Medieval period through the Renaissance.
- 4146. Baroque Art. (3).**  
An historical study of the architecture, sculpture, and painting from the end of the Renaissance to the Industrial Revolution.
- 4151. Nineteenth-Century Art. (3).**  
A study of the art movements of the nineteenth century from Neo-Classicism to Impressionism.

4154. **Twentieth-Century Art.** (3).  
A study of the major art developments in Europe and the United States from Post-Impressionism to the present.
4163. **Pre-Columbian Art.** (3).  
A specialized study of the art and architecture of the Pre-Inca and Inca peoples of South America and the Maya, Zapotec, Toltec, Aztec, and related peoples of Mexico.
4165. **Art of the American Indian.** (3).  
A survey of the arts of the North American Indians from prehistory to the present.
4171. **Oriental Art.** (3). (409)  
A general survey of Oriental art from the earliest times to the present, dealing specifically with Persian, Indian, Chinese, and Japanese art.
4181. **Primitive Art.** (3). (451)  
A survey of the art of the primitive Negro of Africa, the aboriginal peoples of Oceania, and the American Indian.
4221. **Graphic Design.** (3). (423)  
Advanced problems in the fields of advertising and merchandising design. PREREQUISITES: Art 3221 and 3222 or permission of the instructor.
4222. **Graphic Design.** (3). (424)  
A continuation of Art 4221 with special attention given to individual problems and to personal approach. PREREQUISITES: Art 3221, 3222, and 4221, or permission of the instructor.
4231. **Interior Design.** (3). (429)  
Advanced study in interior design. Problems in designing complete interiors for homes and commercial structures. PREREQUISITES: Art 4234.
4232. **Interior Design.** (3). (430)  
A continuation of Art 4231 with further problems in home and commercial interiors. PREREQUISITES: Art 4231, or permission of instructor.
4233. **Interior Rendering.** (3). (425)  
Professional techniques in the rendering of interiors and the construction of models.
4234. **Interior Rendering.** (3). (426)  
A continuation of Art 4233 with further emphasis on rendering techniques.
4235. **Interior Design Research.** (3).  
Intensive study of special areas of interior design with emphasis on space planning and lighting. PREREQUISITE: Art 3232, or permission of the instructor.
4236. **Interior Design Research.** (3).  
Continuation of Art 4235 with emphasis on furniture design and construction. PREREQUISITE: Art 4235, or permission of the instructor.
4321. **Drawing and Painting.** (3). (431)  
An advanced course in drawing and painting methods with emphasis

on transparent watercolor. PREREQUISITES: Art 2321 or permission of instructor.

**4322. Drawing and Painting. (3). (432)**

A continuation of Art 4321 with attention given to various mixed media. PREREQUISITES: Art 2321 and 4321 or permission of instructor.

**4331. Oil. (3). (433)**

A consideration of advanced problems in oil painting, presupposing that the student has mastered basic techniques and is ready for a more experimental approach to the subject. PREREQUISITES: Art 3331 and 3332, or the permission of the instructor.

**4332. Oil. (3). (434)**

A continuation of Art 4331 with emphasis on the development of a personal style. PREREQUISITES: Art 3331, 3332, and 4331, or permission of the instructor.

**4341. Illustration. (3). (421)**

A survey of the many areas requiring the services of an illustrator and including the preparation of book, magazine, advertising, and television illustrations.

**4342. Illustration. (3). (422)**

A continuation of Art 4341, dealing with analysis of fine art techniques of drawing and painting as they apply to commercial illustration.

**4351. Printmaking. (3). (441)**

Specialization in one or two graphic media. Students are encouraged to develop a personal imagery and the necessary technical abilities. PREREQUISITES: Art 2351, 3351, and 3352, or permission of the instructor.

**4352. Printmaking. (3). (442)**

The culminating course in the graphic arts in which work may be done in woodcut, etching, or lithography. PREREQUISITES: Art 2351, 3351, 3352, and 4351, or permission of the instructor.

**4421. Materials and Methods in Teaching Secondary School Art. (3).**

(SAME as Education 3321)

Designed to aid future art teachers in understanding adolescent art expression and in preparing art teaching materials for the secondary school art program. PREREQUISITES: Art 3421 and 3424, or permission of the instructor.

**4511. Sculpture. (3).**

Advanced work in various sculptural media. PREREQUISITE: Art 2511, 3511, and 3512, or permission of the instructor.

**4512. Sculpture. (3).**

A continuation of Art 4511 with emphasis upon personal expression. PREREQUISITE: Art 4511, or permission of the instructor.

**4551. Working Drawings and Professional Practice. (3).**

Detailing of interior construction and scheduling of finishes. PREREQUISITE: Art 3232, or permission of the instructor.

**4552. Working Drawings and Professional Practice. (3).**

A continuation of Art 4551. PREREQUISITE: Art 4551, or permission of the instructor.

- 4611. Senior Problem. (3). (461)**  
Original research in the student's area of concentration, the extent of the project to be approved by the art faculty.
- 4621. Workshop in Art. (3). (415)**  
The study of specific art problems as they apply to the individual student with emphasis on basic art concepts and creative experience. **PREREQUISITE:** permission of the instructor.
- 4622. Workshop in Art. (3). (416)**  
A continuation of Art 4621, providing study of problems appropriate to the need of the individual student. **PREREQUISITE:** permission of the instructor.
- 4641. Study and Travel in Art. (3 or 6). (407)**  
Travel to important art areas of the world and specialized study under the direction of a faculty member of the Department of Art.

## BIOLOGY

PROFESSOR CARL DEE BROWN, *Chairman*  
*Room 103, Ellington Hall*

Requirements for the major and minor in biology are listed on page 153. Information concerning pre-professional curricula will be found on page 127 and 140. The program for the degree of Bachelor of Science in Medical Technology is outlined on page 151.

### ADVANCED PLACEMENT

Beginning freshmen who have completed an advanced biology course in high school may apply to the chairman of the Department of Biology, during the semester preceding enrollment, for advanced placement. For further details of advanced placement, see page 118.

- 1001. Introduction to Biology. (3). (111)**  
An introductory survey of biology, with emphasis on the animal kingdom, designed for non-science majors. Credit in this course is not acceptable for the biology major or in related pre-professional curricula. Credit not allowed for both Biology 1001 and 1600.  
*Two lecture, two laboratory hours per week.*
- 1002. Introduction to Biology. (3). (112)**  
A continuation of Biology 1001, with emphasis on the plant kingdom. Credit in this course is not acceptable for the biology major or in the pre-professional curricula. Credit not allowed for both Biology 1002 and 1200.  
*Two lecture, two laboratory hours per week.*
- 1200. General Plant Biology. (5). (141)**  
A survey of the plant kingdom considering distribution, taxonomic relationships, morphology, physiology, and economic importance of selected forms.  
*Three lecture, four laboratory hours per week.*
- 1400. Microbiology. (4). (130)**  
A course designed to meet the requirements of student nurses and

majors in the Department of Health, Physical Education, and Recreation.

*Three lecture, two laboratory hours per week.*

**1600. General Animal Biology. (5). (142)**

A survey of the animal kingdom, considering distribution, taxonomic relationships, morphology, physiology, and economic importance of selected forms.

*Three lecture, four laboratory hours per week.*

**1631. Human Anatomy and Physiology. (3). (131)**

A study of the structure and function of the human organism, designed primarily for majors in the Department of Health, Physical Education, and Recreation.

*Two lecture, two laboratory hours per week.*

**1632. Human Anatomy and Physiology. (3). (132)**

A continuation of Biology 1631, designed primarily for majors in the Department of Health, Physical Education, and Recreation. PREREQUISITE: Biology 1631 or the equivalent.

*Two lecture, two laboratory hours per week.*

**1731. Anatomy and Physiology. (4). (121)**

A detailed study of the structure and functions of the human organism.

*Three lecture, two laboratory hours per week.*

**1732. Anatomy and Physiology. (4). (122)**

A continuation of Biology 1731. PREREQUISITE: Biology 1731 or the equivalent.

*Three lecture, two laboratory hours per week.*

**2001. Elements of Biology. (3).**

A study of the basic concepts of animal and plant life. (This course, designed for students in The College of Education seeking certification in elementary education, will not satisfy science requirements for degrees in other colleges of the University.)

*Two lecture, two laboratory hours per week.*

**2002. Natural History and Bio-Conservation. (3).**

Emphasis is placed on plants and animals in their environment, the use of field work in teaching elementary science, and the study of ecological principles related to bio-conservation. (This course, designed for students in The College of Education seeking certification in elementary education, will not satisfy science requirements for degrees in other colleges of the University.) PREREQUISITE: Biology 2001.

*Two lecture, two laboratory hours per week.*

**3050. General Ecology. (4). (352)**

The study of plant and animal communities in relation to their environment. PREREQUISITES: Biology 1200 and 1600, or the equivalent.

*Two lecture, four laboratory hours per week.*

**3070. Genetics. (4). (300)**

A study of the principles of heredity, including laboratory experiments in *Drosophila* breeding. PREREQUISITES: Biology 1200 and 1600, or the equivalent.

*Three lecture, three laboratory hours per week.*



**3100. History of Biology. (3). (315)**

The development of the science of biology, considering the work of outstanding biologists and the influence of their contributions. PREREQUISITE: 16 semester hours in biology, or permission of the instructor.

**3170. Heredity. (3). (301)**

The principles of heredity with applications to human problems, designed for non-science majors and recommended for students who desire a better understanding of heredity and eugenics. Not acceptable as credit toward a biology major. Credit is not allowed for both 3070 and 3170.

*Three lecture-discussion hours per week.*

**3240. Field Botany. (4). (304)**

Observation, classification, and mounting of representative specimens of flowering plants in the Memphis area. PREREQUISITE: Biology 1200 or the equivalent.

*Two lecture, four laboratory hours per week.*

**3400. The Relation of Microorganisms to Man. (3). (330)**

The nature and activities of the microorganisms as they affect the welfare of man; some time is devoted to the pathogens—etiology and transmission of diseases, immunity, and other factors bearing upon the health of the individual and the community. Designed for non-science majors. Credit not allowed for both 3400 and 3500.

**3500. General Bacteriology. (5). (302)**

A general course dealing with the fundamentals of bacteriology. PREREQUISITE: one year of biology or one year of chemistry.

*Three lecture, four laboratory hours per week.*

**3600. Ornithology. (4). (340)**

A study of the habitats, migrations, nesting habits, and classification of birds. Field trips for recognition of the more common local birds will be organized as needed. PREREQUISITE: Biology 1600, or the equivalent.

*Two lecture, four laboratory hours per week.*

**3610. Vertebrate Embryology. (4). (332)**

The development of selected vertebrate embryos from the fertilized egg cell. PREREQUISITE: Biology 1600 or the equivalent.

*Two lecture, four laboratory hours per week.*

**3620. Comparative Anatomy of Vertebrates. (5). (331)**

The origin, development, structure, and functions of the organs and systems of selected forms of vertebrates. PREREQUISITE: Biology 1600, or the equivalent.

*Two lecture, six laboratory hours per week.*

**3630. The Physiology of Exercise. (3). (344)**

The anatomy and physiology of muscular movement. PREREQUISITES: Biology 1631 and 1632, or the equivalent.

*Three lecture-demonstration hours per week.*

**3700. Vertebrate Zoology. (4).**

A study of the life histories, adaptations, ecology, distribution behavior, and classification of vertebrates. PREREQUISITE: Biology 1600 or the equivalent.

*Two lecture, four laboratory hours per week.*

- 3730. Human Physiology. (4). (341)**  
A study of the essential functions of living organisms, considering necessary structural relationships and emphasizing the normal function of the human body. PREREQUISITES: Biology 1600 (or the equivalent) and one year of chemistry.  
*Three lecture, two laboratory hours per week.*
- 3800. Parasitology. (4). (361)**  
Distribution, morphology, life history, economic importance, and control of some of the parasites of man and domestic animals, Protozoa through helminths. PREREQUISITE: Biology 1600 or the equivalent.  
*Two lecture, four laboratory hours per week.*
- 3900. General Entomology. (3). (311)**  
An introduction to the insects with emphasis on morphology, physiology, development, behavior, and ecology. PREREQUISITE: Biology 1600 or the equivalent.  
*Two lecture, two laboratory hours per week.*
- 3920. Insect Morphology. (4). (314)**  
A study of the form and structure of insects, considering both external and internal morphology. PREREQUISITE: Biology 3900 or 3940 or the equivalent.  
*Two lecture, four laboratory hours per week.*
- 3930. Introduction to Insect Physiology. (3). (312)**  
A study of physiology as applied to the life processes of insects. PREREQUISITE: Biology 3900 and 3940 or the equivalent.  
*Two lecture, two laboratory hours per week.*
- 3940. Systematic Entomology. (3). (312)**  
Classification of the insects, the interpretation and use of keys, and the preparation of a representative collection. PREREQUISITE: Biology 1600 or the equivalent.  
*One lecture, four laboratory hours per week.*
- 3960. Medical Entomology. (4). (362)**  
Distribution, morphology, life history, economic importance, and control of some of the insects and other arthropods which are parasites or serve as vectors for disease-producing organisms. PREREQUISITE: Biology 1600 or the equivalent.  
*Two lecture, four laboratory hours per week.*
- 4000. Problems in Biology. (2 to 4). (400)**  
Individual problems pursued by qualified students under supervision of a member of the biology faculty, designed to develop interest and proficiency in biological research.
- 4060. Limnology. (4). (312)**  
Physical and chemical attributes of lakes, ponds, and streams; organisms of fresh water; problems of production; practical training in limnological methods and identification of organisms. PREREQUISITES: Biology 1600 and one year of chemistry.  
*Two lecture, four laboratory hours per week.*
- 4080. Radiation Biology. (3). (312)**  
The origin and characteristics of ionizing radiations with a detailed dis-

cussion of radiation effects upon life processes from the molecular to the ecosystem level. PREREQUISITE: Chemistry 3311 or 3312; Biology 3070.

*Two lecture, two laboratory hours per week.*

**4100. Organic Development. (3). (410)**

The consideration of theoretical and scientific evidences concerning the origin, development, and establishment of the major groups of living and extinct animals and plants. Recommended for biology majors and general students as well. PREREQUISITE: One year of biology.

**4130. Cell and Molecular Biology. (4).**

An introduction to the principles of molecular biology including discussions of ultrastructure, intracellular metabolism, gene structure and function, and cell differentiation. PREREQUISITES: Biology 3070 and Chemistry 3312.

*Two lecture, four laboratory hours per week.*

**4221. Plant Morphology. (4). (401)**

Comparative studies of general structure of lower plants, through the Bryophytes. PREREQUISITE: Biology 1200 or the equivalent.

*Two lecture, four laboratory hours per week.*

**4222. Plant Morphology. (4). (402)**

A continuation of Biology 4221, considering the vascular plants. PREREQUISITE: Biology 1200 or the equivalent.

*Two lecture, four laboratory hours per week.*

**4231. Plant Physiology. (4). (426)**

A study of the principles of physiology and their application to the lower plant groups, exclusive of the bacteria and related forms. PREREQUISITE: permission of the instructor.

*Two lecture, four laboratory hours per week.*

**4232. Plant Physiology. (4). (425)**

Principles of physiology and their application to the living organism, with emphasis on higher plants. PREREQUISITE: Permission of the instructor.

*Two lecture, four laboratory hours per week.*

**4240. Plant Taxonomy. (4). (420)**

Principles of plant taxonomy, with special attention given to the classification of selected vascular plant families. PREREQUISITE: permission of the instructor.

*Lectures, laboratory hours, and field trips.*

**4260. Histological Technique. (3). (404-A)**

A study of the methods of preparing plant tissues for microscopic study; theories of staining and preparation of permanent mounts. Credit not allowed for both 4260 and 4660. PREREQUISITE: Biology 1200, or consent of instructor.

*One lecture, four laboratory hours per week.*

**4400. Advanced Microbiology. (4).**

Advanced theory and principles of microbiology with emphasis on morphology and bacterial metabolism. PREREQUISITE: Biology 3500 and one year of introductory biology, one year of inorganic chemistry, with organic chemistry desirable.

*Two lecture, four laboratory hours per week.*

**4440. Pathogenic Bacteriology. (4).**

Methods of bacteriological technique, pure culture studies, and classification of bacteria. PREREQUISITE: Biology 3500, one year of introductory biology, one year of inorganic chemistry, with organic chemistry desirable.

*Two lecture, four laboratory hours per week.*

**4460. Sanitary Bacteriology. (4). (405)**

A study of microorganisms in relation to water and sewage; disinfection and disinfectants. PREREQUISITE: Biology 3500 or the equivalent.

*Two lecture, four laboratory hours per week.*

**4560. Microbiology of Foods. (4). (406)**

Microorganisms in natural and processed foods; origins, nature, and effects on foods; enumeration; and the relation to health. PREREQUISITE: Biology 3500 or the equivalent.

*Two lecture, four laboratory hours per week.*

**4604. Ethology. (4).**

A study of animal behavior with emphasis on recent developments in the field, including history of ethology, learning, releasers, communication, orientation, instinct, biological clocks, and evolution of behavior. PREREQUISITE: Biology 1600 or the equivalent.

*Two lecture, four laboratory hours per week.*

**4620. Vertebrate Histology. (4). (403)**

Microscopic study of normal tissues and organs of the vertebrate body. PREREQUISITE: Biology 3620 or 3730.

*Two lecture, four laboratory hours per week.*

**4630. General Endocrinology. (3).**

Anatomy and physiology of the organs of internal secretion; role of hormones in metabolism and development. PREREQUISITE: Biology 3730.

**4640. Field Zoology. (4). (440)**

Field study of the identification, life history, and habitat of the animals of this locality; birds and insects are omitted. PREREQUISITE: 8 semester hours of biology, including Biology 1600 or the equivalent.

*Two lecture, four laboratory hours per week.*

**4644. Ichthyology. (4).**

Collection, preservation, identification, life histories, management, and economic importance of fishes. PREREQUISITE: Biology 1600.

*Two lecture, four laboratory hours per week.*

**4660. Histological Technique. (3). (404-B)**

Methods of preparing animal tissues for microscopic study; theories of staining and preparation of permanent mounts. Credit not allowed for both 4260 and 4660. PREREQUISITE: Biology 1600 or consent of the instructor.

*One lecture, four laboratory hours per week.*

**4720. Comparative Neurology. (4). (460)**

A detailed study of the nervous system of selected animals with emphasis on the vertebrates. PREREQUISITE: permission of the instructor.

*Two lecture, four laboratory hours per week.*

**4740. Mammalogy. (4).**

Classification, distribution, life histories, economic importance, techniques of field study, methods of collection and preservation of mammals. PREREQUISITE: Biology 3620.

*Two lecture, four laboratory hours per week.*

**4744. Herpetology. (4).**

Classification, distribution, life histories, techniques of collection and preservation, natural habitats of North American reptiles and amphibians. PREREQUISITE: Biology 1600.

*Two lecture, four laboratory hours per week.*

**4760. Wildlife Management. (4).**

Distribution, identification, population analysis, game mapping techniques, and management of wildlife. PREREQUISITE: Biology 3050 and one of the following: Biology 3600, 4640, 4644, 4740, 4744.

*Two lecture, four laboratory hours per week.*

**4840. Invertebrate Zoology. (4). (430)**

The invertebrate animals, exclusive of the insects, with special attention given to phylogeny, organology, and taxonomy. PREREQUISITE: Biology 1600 or the equivalent.

*Two lecture, four laboratory hours per week.*

**4940. Aquatic Entomology. (4).**

A survey of the orders of insects having aquatic and/or semiaquatic members with primary emphasis on their classification and secondary emphasis on their biologies, habitats, etc. A collection is required. PREREQUISITE: Biology 3900 and 3940, or permission of the instructor.

*Two lecture, four laboratory hours per week.*

*(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)*

**5100. Instrumentation. (2). (S-530)**

A consideration of recent development in biological techniques which may be applied to the study of living organisms.

**5330. Intermediary Plant Metabolism. (3).**

A detailed study of the metabolism of carbohydrates, fats and nitrogen compounds in higher plants. PREREQUISITE: Permission of instructor.

**5840. Protozoology. (4). (S-560)**

A survey of the free living and parasitic protozoa, with consideration given to structure, taxonomy, habitat, and life history. PREREQUISITE: Biology 1600 or the equivalent.

*Two lecture, four laboratory hours per week.*

*Graduate courses in Biology: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*



# CHEMISTRY

PROFESSOR JESSE WELLS FOX, *Chairman*  
*Room 210, J. M. Smith Hall*

The Department of Chemistry offers majors and minors in chemistry and physical science; requirements are listed on page 153. The Department also offers the professional degree of Bachelor of Science in Chemistry, details of which are outlined on page 143. This program is designed to meet the requirements of the Committee on Professional Training of the American Chemical Society. Students completing this program may go directly into positions in the chemical industry or may enroll for graduate study in chemistry, leading to research positions, college teaching, or other positions requiring an advanced degree. Information concerning pre-professional curricula will be found on page 140. The program for the degree of Bachelor of Science in Medical Technology is outlined on page 151.

## SEQUENCE OF COURSES

Students who present credit in high school chemistry or physics should enroll in Chemistry 1111 if they plan to take more than one year of college chemistry or plan to major in a natural science. The Chemistry 1051 and 1052 sequence is designed for non-science majors who desire only one year of chemistry in satisfying their degree requirements. Students with credit in Chemistry 1051, who desire to satisfy the requirements of the Chemistry 1111 and 1112 sequence, or who plan to take advanced courses in chemistry, should register for Chemistry 1111 and not Chemistry 1052.

## ADVANCED PLACEMENT

Beginning students who have had high school chemistry and who have had advanced training in summer institutes, research participation projects, advanced high school chemistry courses, etc., are invited to apply, preceding enrollment, to the chairman of the Department of Chemistry for advanced placement. If previous experience and grades on a qualifying examination merit consideration, credit will be given on beginning courses for which examinations are satisfactorily completed. For further details of advanced placement, see page .

### 1000. Chemistry for Nurses. (4). (100s)

A study of the application of chemistry in health and disease, designed to meet the need of students who plan to enter the nursing profession. Approximately one-half of the semester is allocated to general chemistry, one-fourth to organic chemistry, and one-fourth to biochemistry.

*Three lecture, two laboratory hours per week.*

### 1051. Elementary Chemistry. (4).

A study of the chemistry of the more important elements and compounds, designed for students who do not expect to take more than two semesters of chemistry. *This course will not be credited toward a major or minor in chemistry or physics.*

*Three lecture, two laboratory hours per week.*

### 1052. Elementary Chemistry. (4).

A continuation of Chemistry 1051, including the more important compounds of carbon as found in petroleum, foods, fabrics, etc. *This course will not be credited toward a major or minor in chemistry or physics.* PREREQUISITE: Chemistry 1051.

*Three lecture, two laboratory hours per week.*

**1111. General Chemistry. (4).****(111)**

The basic college course in chemistry, covering atomic structure; bonding between atoms; periodicity of the elements; stoichiometry; the gaseous, liquid, and solid states of matter; solutions; the colloidal state; oxidation and reduction; and electrochemistry. A portion of the laboratory work is devoted to elementary qualitative analysis. Required of all chemistry and physics majors and minors and of students following pre-professional curricula in medicine, dentistry, pharmacy, medical technology, and engineering. **PREREQUISITE:** One unit of high school chemistry or permission of the department chairman. **COREQUISITE:** Mathematics 1211, 1212, or 1321.

*Three lecture, three laboratory hours per week.*

**1112. General Chemistry. (4).****(112)**

A continuation of Chemistry 1111, covering the chemistry of non-metals; reaction rates; chemical equilibrium; ionic equilibria in aqueous solution; thermochemistry; the metallic bond and the properties of metals; the alkali and alkaline earth metals; the transition and inner transition metals; inorganic complexes; and nuclear chemistry. A major portion of the laboratory work is devoted to elementary quantitative analysis. **PREREQUISITE:** Chemistry 1111, and Mathematics 1211, 1212, or 1321.

*Three lecture, three laboratory hours per week.*

**2200. Quantitative Analysis. (4).****(220)**

The theory and practice of gravimetric and titrimetric quantitative chemical analysis, with stress on principles and techniques of gravimetry, titrimetry, stoichiometry, and spectrophotometry. Laboratory work includes the preparation of standard solutions and the analysis of samples. **PREREQUISITES:** Chemistry 1112.

*Two lecture, six laboratory hours per week.*

**3200. Chemical Equilibrium and Electrochemistry. (4).**

A study of acid-base, solubility, complex ion and redox equilibria, and electrochemistry, including activity effects and electroanalytical chemistry. Emphasis is placed upon modern methods of problem solving and laboratory experimentation. The laboratory includes work in determination of parameters of various equilibrium systems, and experiments in electroanalytical chemistry. **COREQUISITE:** Chemistry 3411.

*Two lecture, six laboratory hours per week.*

**3301. General Organic Chemistry Laboratory. (1).**

Designed to accompany Chemistry 3311. Emphasis is placed on laboratory techniques as applied to synthesis and class reactions. **PREREQUISITE:** Chemistry 1112. **COREQUISITE:** Chemistry 3311.

*Three laboratory hours per week.*

**3302. General Organic Chemistry Laboratory. (1).**

A continuation of Chemistry 3301, with emphasis on the correlation of chemical behavior with structure. **PREREQUISITE:** Chemistry 3311 and 3301. **COREQUISITE OR PREREQUISITE:** Chemistry 3312.

*Three laboratory hours per week.*

**3304. General Organic Chemistry Laboratory. (2).**

A continuation of Chemistry 3301, designed for chemistry majors, dealing principally with the characterization of organic compounds by both

chemical and physical methods. PREREQUISITE: Chemistry 3311 and 3301. COREQUISITE OR PREREQUISITE: Chemistry 3312.

*Six laboratory hours per week.*

**3311. General Organic Chemistry. (3).**

A systematic study of the preparations and properties of organic compounds, including interpretations based on modern theories of organic chemistry. Particular emphasis is placed on aliphatic and aromatic hydrocarbons, their halogen derivatives, and alcohols. PREREQUISITE: Chemistry 1112. COREQUISITE OR PREREQUISITE: Chemistry 3301.

*Three lecture hours per week.*

**3312. General Organic Chemistry. (3).**

A continuation of Chemistry 3311, with emphasis on the more important functional derivatives of aliphatic and aromatic hydrocarbons. PREREQUISITE: Chemistry 3311. COREQUISITE OR PREREQUISITE: Chemistry 3302 or 3304.

*Three lecture hours per week.*

**3401. Elementary Physical Chemistry. (4).**

An abbreviated course in physical chemistry. Topics include elementary thermodynamics, phase transitions, solution chemistry, electrochemistry, kinetics, colloidal and surface chemistry, and molecular polarity. (Credit in this course is superseded by credit in Chemistry 3411.) PREREQUISITES: Chemistry 3311 and Physics 2112 or 2512.

*Three lecture, three laboratory hours per week.*

**3402. Chemical Analysis. (4).**

A treatment of the theory and practice of modern chemical analysis. Topics include acid-base, redox and complex ion equilibria, separation techniques, absorption spectrophotometry and electroanalytical methods. PREREQUISITE: Chemistry 3401 or 3411.

*Two lecture, six laboratory hours per week.*

**3411. Physical Chemistry. (4).**

Thermochemical foundations of physical chemistry applied to open and closed systems, kinetic theory of gases, and surface chemistry. PREREQUISITE: Physics 2112 or 2512; Mathematics 2321.

*Three lecture, three laboratory hours per week.*

**3412. Physical Chemistry. (4).**

A continuation of Chemistry 3411 emphasizing kinetics of chemical reactions, quantum chemistry, chemical bonding, statistical mechanics, spectroscopy, and other methods of structure determination. PREREQUISITE: Chemistry 3411.

*Three lecture, three laboratory hours per week.*

**4011. Biochemistry. (4).**

**(401)**

An elementary course dealing principally with chemistry of carbohydrates, proteins, lipids, vitamins, etc., digestion and absorption, with consideration also given to certain physico-chemical topics including the colloidal state, colligative properties, equilibria and buffer mechanisms, and the electrolyte structure of body fluids. PREREQUISITE: Chemistry 3312.

*Two lecture, four laboratory hours per week.*

**4012. Biochemistry. (4). (402)**

The topics include the chemistry of blood and other tissues, the excretions, energy metabolism, intermediary chemical metabolism. **PREREQUISITE:** Chemistry 4011.

*Two lecture, four laboratory hours per week.*

**4200. Advanced Analytical Chemistry. (3). (420)**

A treatment of the theory and calculations of analytical chemistry. Topics include acid-base titrations in water and nonaqueous solvents; the physical form and purity of precipitates; homogeneous precipitation; differential thermal analysis and thermogravimetry; organic precipitants and extractants; stability of complex ions; separations by ion exchange, vaporization, and solvent extraction; redox methods in inorganic and organic determinations; and statistical methods in chemistry. **PREREQUISITE:** Chemistry 3412, or permission of the instructor.

*Three lecture hours per week.*

**4111. Inorganic Chemistry. (3). (Formerly Chemistry 4210).**

A survey of theoretical and applied inorganic chemistry. Stress is placed on the relationship of structure and bonding to the properties of elements and compounds. Topics include introductory molecular orbital theory, coordination compounds and organometallics, ligand field theory, nonaqueous solvent systems, and reaction mechanisms. **PREREQUISITE:** Chemistry 3412, or permission of instructor.

*Three lecture hours per week.*

**4220. Instrumental Methods. (4).**

Theory and application of the principles of electrometric, spectrometric, and chromatographic methods to the collection and interpretation of physical chemistry data; the applications of such methods to analysis; and a study of basic aspects of chemical instrumentation. Experimental techniques studied include advanced portions of electrochemistry; work in the UV, visible, IR, and NMR regions of the electromagnetic spectrum; gas chromatography; and instrument design. **PREREQUISITE:** Chemistry 3200; **COREQUISITE:** Chemistry 3412.

*Two lecture, six laboratory hours per week.*

**4310. Organic Qualitative Analysis. (3). (431)**

Separation and characterization of unknown organic compounds by solubility, class reactions, test reagents, preparation of derivatives, and instrumental methods. **PREREQUISITES:** Chemistry 3312 and 3304 or 3302.

*One lecture, six laboratory hours per week.*

**4311. Structural Organic Chemistry. (3).**

A detailed treatment of the application of physical methods to the determination of structure, with special emphasis on absorption spectroscopy. **PREREQUISITE:** Chemistry 3312, 3412, 3302, or 3304.

*Three lecture hours per week.*

**4411. Advanced Theoretical Physical Chemistry. (3).**

Solutions of the Schrodinger wave equation for the particle in the box, the harmonic oscillator, the rigid rotator, the hydrogen atom and some approximate solutions for other systems, atomic and molecular spectra, and partition functions. **PREREQUISITES:** Chemistry 3412 and Mathematics 2322.

*Three lectures per week.*

**4611. Radiochemistry. (3).**

An elementary course dealing principally with the interaction of radiation with matter, the detection of radiation, and chemical applications of tracers. Other topics will be selected to serve as an introduction to nuclear chemistry; these include nuclear structure, decay schemes, activation analysis, hot-atom chemistry, the Mossbauer Effect, and nuclear energy. PREREQUISITE: Physics 2112 or 2512 and Chemistry 3311.

*Two lecture, three laboratory hours per week.*

**4900. Chemical Literature. (1). (490)**

Use of the chemical literature and the writing of technical reports. PREREQUISITE: junior standing in chemistry.

*One lecture hour per week.*

**4910. Seminar. (1). (491)**

Special projects, reports and investigation of current chemical literature. PREREQUISITE: Chemistry 4900.

*One lecture hour per week.*

**4991. Chemical Research. (1).**

(See description under Chemistry 4993.)

**4992. Chemical Research. (2).**

(See description under Chemistry 4993.)

**4993. Chemical Research. (3).**

An introduction to basic research. The student collaborates with a staff member on a problem of mutual interest selected from the fields of analytical, inorganic, organic, and physical chemistry, and biochemistry. The student gains experience in effective laboratory techniques, critical experiment design, and scientific reporting. To receive credit toward a major in chemistry the student must complete three semester hours in these research courses. PREREQUISITE: Chemistry 4220.

*Three to nine laboratory hours per week.*

*(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)*

**5011. Principles of Chemistry. (3).**

This course is intended to acquaint the teacher of high school chemistry with a modern approach to the principles of chemistry, including atomic structure, chemical bonding, the periodic classification of the elements as it relates to their properties, chemical equilibrium and the law of mass action, ionic equilibria, electrochemistry, oxidation potentials, and an introduction to nuclear chemistry. Problems illustrating the quantitative relationships involved in most of these topics are emphasized. The laboratory will include both qualitative and quantitative analytical techniques. The Chemical Bond Approach materials will be used as a basis for this course. *This course cannot be applied toward a major or minor in chemistry, or physical science.*

*Three lecture hours per week.*



**5020. Principles of Organic Chemistry. (3).**

Open only to high school science teachers, this course is the systematic presentation of the fundamental principles of organic chemistry with interpretation of structure and properties in accord with modern atomic and molecular theory. Emphasis is placed upon the sources and uses of organic compounds in our daily lives. Special topics will be developed that familiarize the high school teacher with the recent advances in the field and areas suitable for special projects for high school students. Laboratory experiments and demonstrations adaptable for use in high school courses will be developed and performed. *This course cannot be applied toward a major or minor in chemistry, physics, or physical science.* PREREQUISITE: Two years of college chemistry or Chemistry 5011.

*Three lecture hours per week.*

**5030. Principles of Analytical Chemistry. (3).**

This course stresses recent analytical methods. It covers the fundamental principles of analytical chemistry including some gravimetric and titrimetric methods but with major emphasis on modern instrumental techniques. These include ultraviolet, visible and infrared spectrophotometry; potentiometric, conductometric, voltametric, and electrolytic methods; and both liquid and gas phase chromatography. This course, open only to teachers of high school science, cannot be applied toward a major or minor in chemistry, physics, or physical science. PREREQUISITE: Two years of college chemistry or Chemistry 5011.

*Three lecture hours per week.*

**5111. Advanced Inorganic Chemistry. (3).**

A survey of theoretical and applied inorganic chemistry; stress is placed on nuclear and extranuclear structure, and the relationship of bonding to the properties of elements and compounds. PREREQUISITE: Chemistry 4111.

*Three lecture hours per week.*

**5211. Advanced Analytical Chemistry. (3).**

A presentation of modern analytical chemistry with emphasis on method selection and development. A treatment of the theory involved in selected analytical methods is also included. Topics include equilibrium in various solvents, precipitates, separations, redox methods, and data evaluation. PREREQUISITE: Chemistry 4220.

*Three lecture hours per week.*

**5311. Advanced Organic Chemistry. (3).**

A detailed examination of the principal mechanistic categories and the influence of structure on reactivity, PREREQUISITE: Chemistry 3312 and 3412.

*Three lecture hours per week.*

**5320. Introduction to Nuclear Magnetic Resonance. (2).**

This course will provide the beginning graduate student with the fundamental concepts that form the basis of nuclear magnetic resonance. The laboratory will provide the practical experience necessary to enable the student to utilize nuclear magnetic resonance as a useful research tool. PREREQUISITE: Chemistry 3312 or equivalent.

*One lecture, three laboratory hours per week.*

**5340. Introduction to Infrared Spectroscopy. (2).**

This course will provide the beginning graduate student with the fundamental concepts of infrared spectroscopy. The laboratory will provide the practical experience necessary to enable the student to utilize infrared spectroscopy as a useful research tool. PREREQUISITE: Chemistry 3312 or equivalent.

*One lecture, three laboratory hours per week.*

**5411. Advanced Physical Chemistry. (3).**

Thermodynamics in relation to chemical equilibria and reactivity, including such topics as isothermal and adiabatic expansions, cyclic processes, heat content, specific heats, entropy, enthalpy, free energy, and vapor pressures. PREREQUISITE: Chemistry 3412 and Mathematics 2322.

*Three lecture hours per week.*

**5511. General Biochemistry. (3).**

A survey of the chemistry of compounds of interest in biological systems and metabolic processes. PREREQUISITE: Chemistry 3312 and 3412.

*Three lecture hours per week.*

## PHYSICAL SCIENCE

**1031. Principles of Physical Science. (3).**

Fundamental principles and concepts of chemistry and physics related to the understanding and teaching of physical science. (*This course, designed for students in The College of Education seeking certification in elementary education, will not satisfy science requirements for degrees in other colleges of the University.*)

*Three lecture, two laboratory hours per week.*

**1032. Principles of Physical Science. (3).**

Principles and concepts of astronomy, meteorology, and geology related to the understanding and teaching of physical science. PREREQUISITE: Physical Science 1031. (*This course, designed for students in The College of Education seeking certification in elementary education, will not satisfy science requirements for degrees in other colleges of the University.*)

*Three lecture, two laboratory hours per week.*

**4050. Glass Manipulation. (2).**

(Chemistry 405)

A laboratory course in the fundamentals of glass manipulation and the construction and repair of simple laboratory apparatus. PREREQUISITE: Senior standing.

*Six laboratory hours per week.*

**4070. Physical Science for High School Teachers. (3).**

A study of the fundamental principles of chemistry and physics as they relate to the understanding and teaching of these sciences in high school.

*Three lecture hours and laboratory experiments per week.*

**4071. Physical Science for High School Teachers. (3).**

A study of the fundamental principles of astronomy, meteorology, and geology as they relate to the understanding and teaching of these

sciences in high school. PREREQUISITE: Physical Science 4070.

*Three lecture hours and laboratory experiments per week.*

**4900. Scientific Literature. (1).**

Use of the scientific literature and the writing of technical reports.

PREREQUISITE: Three academic years of chemistry and/or physics.

*One lecture hour per week.*

*(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. These courses do not carry graduate credit nor are they applicable to any degree offered in The Graduate School.)*

**5010. Teaching Science Through Inquiry. (3).**

Primarily a laboratory course designed especially for high school teachers, emphasizing the techniques of lecture demonstration and laboratory work which promote an understanding of physical phenomena through the method of inquiry. Selected experiments will be conducted and evaluated in terms of their value to catalyze inquiry and understanding in the minds of high school students.

**5040. Astronomy. (3).**

**(S501-I)**

A course in astronomy open to junior and senior high school teachers of science.

*Graduate courses in Chemistry and Physical Science: For course descriptions and further details of the graduate program, see The Bulletin of the Graduate School.*

## CIVIL ENGINEERING

PROFESSOR THOMAS S. FRY, *Chairman*

*Room 104A, Engineering Building*

Requirements for the B.S. in Civil Engineering are listed on page 189.

**2131. Statics. (3).**

Analysis of two and three dimensional systems; centroids and moment of inertia; friction. PREREQUISITE: Physics 2511.

*Three lecture hours per week.*

**3101. Computer Methods in Civil Engineering. (3).**

Algorithmic approach to digital computation; iterative and logical methods; analog computations for distributive systems; civil engineering applications. PREREQUISITE: Engineering 1011; Mathematics 3391.

*Three lecture hours per week.*

**3111. Field Measurements. (3).**

**(4111)**

Principles of field measurements; earthwork calculations; alignment of curves; error analysis. PREREQUISITE: Engineering 1011; Mathematics 2321.

*Two lecture, three laboratory hours per week.*

- 3121. Structural Analysis I. (3).** (4112)  
Statically determinate structural systems; analytical and numerical solutions; influence lines; deflection analysis. PREREQUISITE: Civl. 2131.  
*Three lecture hours per week.*
- 3131. Design of Steel Structures. (3).** (5111)  
Current design concepts for structural steel members and their connections; introduction to plastic design. PREREQUISITE: Civl. 3121.  
*Two lecture, three laboratory hours per week.*
- 4121. Structural Analysis II. (3).** (5131)  
Analytical and numerical solutions for statically indeterminate structures. PREREQUISITE: Civl. 3121.  
*Three lecture hours per week.*
- 4135. Reinforced Concrete Design. (4).** (5112)  
Straight-line and ultimate strength analysis for reinforced concrete members; floor systems; introduction to prestressed concrete. PREREQUISITE: Civl. 3121.  
*Three lecture, three laboratory hours per week.*
- 4141. Hydrology and Water Supply. (3).** (5121)  
Hydrology of ground and surface water; hydraulic networks; water supply and distribution systems. PREREQUISITE: Mech. 3331.  
*Three lecture hours per week.*
- 4145. Waste Treatment. (4).** (5122)  
Water quality, control, and treatment; physical, chemical, and biological treatment of wastes; air pollution control. PREREQUISITE: Senior standing in Civil Engineering.  
*Three lecture, three laboratory hours per week.*
- 4151. Soil Mechanics. (4).** (5101)  
Physico-chemical basis of soil structure; identification and classification; permeability, compressibility, and shear strength. PREREQUISITES: Mech. 3322, 3331.  
*Three lecture, three laboratory hours per week.*
- 4152. Applied Soil Mechanics. (3).** (5102)  
Applications of theory to the design of building foundations, retaining walls, and hydraulic structures. PREREQUISITE: Civl. 4151.  
*Three lecture hours per week.*
- 4161. Transportation Systems Engineering. (3).**  
Development and function of transportation systems; operational control and characteristics; system coordination; traffic flow and patterns. PREREQUISITE: Senior standing in Civil Engineering.  
*Three lecture hours per week.*
- 4341. Engineering Economics. (3).** (4041)  
Application of economics and decision theory to engineering alternatives in planning, developing, constructing, and managing engineering projects. PREREQUISITE: Senior standing in engineering.  
*Three lecture hours per week.*

# DISTRIBUTIVE EDUCATION

PROFESSOR C. EDWIN PEARSON, *Chairman*  
*Room 415, The College of Education Building*

The Department of Distributive Education offers a major and a minor to prepare teacher-coordinators for vocational marketing programs in high schools, technical institutes and junior colleges. The requirements are listed on page 180. (*Students majoring in Marketing may secure certification to teach Distributive Education through this department*).

The prefix used by The College of Education for courses in Distributive Education is DTED.

**4610. Organization and Operation of Distributive Education Programs. (3).**

A study of the background and development of distributive education in the United States; Federal and State legislation; curriculum implementation, establishing, evaluating, reporting and improving programs.

**4630. Materials and Methods in Distributive Education. (3).**

The instructional materials and techniques used in high school and post-high school Distributive Education classes.

**4640. Marketing for Distributive Education Teachers. (3).**

An introduction to marketing, marketing functions, merchandising, prices and competition. PREREQUISITE: Permission of Distributive Education Department chairman.

**4650. Retailing Principles for Distributive Education Teachers. (3).**

A study of the organization, functions, and operation of retail businesses with emphasis on training needs and the implications for the distributive education teacher-coordinator. PREREQUISITE: permission of the Distributive Education Department chairman.

**4690. Workshop in Distributive Education. (1-6).**

Designed to meet the needs of inservice teachers by offering an opportunity to work cooperatively on problems which are real to teaching situations and which meet the needs of the individual. PREREQUISITE: Teaching experience and permission of director of the workshop.

**4871. Student Teaching in Distributive Education. (3-9).**

Observation of the operation of a high school Distributive Education program and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching and coordinating entire groups. PREREQUISITES: Distributive Education 4610 and 4630.

**5640. Techniques of Coordination in Vocational Education. (3).**

Selecting training agencies; developing job analyses; selecting and briefing the training supervisor; selecting and working with advisory committees; utilizing other community resources. PREREQUISITES: Distributive Education 4610, 4630 or consent of instructor.

**5650. Basic Problems in Distributive Education. (1-3).**

A study of current trends and problems related to distributive education; viewpoints of leaders in the field; special attention to problems of students enrolled.



**5660. Organizing and Teaching Adult Distributive Education. (3).**

A study of the techniques of working with trade associations, employment services, manpower programs, itinerant instructors and the unique features of planning, organizing, promoting, teaching and evaluating balanced continuing education programs for distributive occupations.

**5680. Development and Supervision of DECA Programs. (3).**

Aims and objectives of the Distributive Education Clubs of America and their value to the total Distributive Education field, emphasizing development, curricular integration, and evaluation of programs and activities. PREREQUISITES: Distributive Education 4610 and 4630.

**5690. The Project Method in Distributive Education. (3).**

The development, use, and coordination of class, small group, and individual vocational projects providing simulated occupational experiences for the high school Distributive Education student. PREREQUISITES: Distributive Education 4630 and 5640.

*Graduate courses in Distributive Education: For details of the graduate program, see The Bulletin of The Graduate School.*

## DRAMA

(See SPEECH AND DRAMA)

## ECONOMICS

PROFESSOR KURT F. FLEXNER, *Chairman*

*Room 306, The College of Business Administration Building*

Requirements for the majors and minors in economics for the Bachelor of Business Administration degree are listed on page 169. Requirements for the major and minor in economics for the bachelor's degree in The College of Arts and Sciences are listed on page 154.

**2110. Economics I. (3). (212)**

An introduction to economics as a social science, with major emphasis on understanding the issues and key socio-economic problems in our private enterprise society. The major purpose of the course is economically informed citizenship. PREREQUISITE: 21 semester hours.

**2120. Economics II. (3). (212)**

An invitation to the professional analytical techniques of the economist and to the ways and means that these techniques are used to achieve reliable answers to economic problems. Basic economic institutions are studied. PREREQUISITE: Economics 2110.

**2130. Principles of Economics I (Honors). (3).**

An accelerated and intensified introduction to the first half of the principles of economics for students of exceptional ability. PREREQUISITE: Invitation of the Department of Economics.

**2140. Principles of Economics II (Honors). (3).**

A continuation of Economics 2130. PREREQUISITE: Invitation of the Department of Economics.

- 3210. Labor Economics. (3). (321)**  
An introductory course dealing with the institutional aspects of the American labor force and its organization, wage and employment theory, the economic role of collective bargaining, and the basic ingredients of public policy toward labor organization. PREREQUISITE: Economics 2120.
- 3310. Microeconomic Theory. (3). (413)**  
An intermediate level approach to price theory. Stress is placed on the market mechanism as a device for resource allocation, with attention given to the uses of basic microeconomic concepts in the analysis of economic problems and in the formulation of economic policy. Both semesters. PREREQUISITE: Economics 2120.
- 3320. Macroeconomic Theory. (3). (492)**  
An intermediate level approach. Attention is given to social income accounting and to functional relationships between important aggregate economic variables as well as to forecasting and social policy implications. Both semesters. PREREQUISITE: Economics 2120.
- 3410. Economic Development of the United States. (3). (311)**  
Analysis of economic growth of the American economy in general and of the problems of economic growth in the South in particular. Emphasis is placed on the factors instrumental in that growth in the various segments of the economy. PREREQUISITE: Economics 2120.
- 3610. Money and Banking. (3). (361)**  
Monetary and banking history of leading countries with special emphasis on the theory of money and banking in the United States, deposit and earning operations of individual banks, interbank and central bank relations. Both semesters. PREREQUISITE: Economics 2120.
- 4110. Latin American Economic Development. (3). (312)**  
A critical examination of the economic organization and problems of Latin American countries in the context of growth and development theory. PREREQUISITE: Economics 2120.
- 4111. Economics of Business Enterprise. (3). (312)**  
An attempt to develop an understanding of the economic reasoning underlying managerial decision-making. Economic analytical techniques are applied to profit, competition, product policy, demand and cost conditions, pricing policies, and capital budgeting. Both semesters. PREREQUISITE: Economics 2120.
- 4120. Business Cycles and Forecasting. (3). (414)**  
Cyclical fluctuations examined from the standpoint of definition, theoretical explanation, measurement and quantitative evaluation, secular change implications, and basic forecasting techniques. Both semesters. PREREQUISITE: Economics 3610 and Management 2711.
- 4130. Government Regulation of Business. (3). (491)**  
The several approaches to legal and legislative control of business—especially tax laws, commission regulation, and anti-monopoly legislation—are considered in view of the impact of each on industrial operating policy. Both semesters. PREREQUISITE: Economics 2120.
- 4140. Business and Economic Research. (3). (312)**  
A study of basic research techniques and their application to business

and economic problems. Attention is given to both primary-source and secondary-source study approaches. A critical evaluation of selected sample studies is made. Spring semester. PREREQUISITE: Management 3711.

**4220. History and Theory of American Labor Movements. (3).**

A study of major events and trends in American labor history from colonial times to the present, and their significance in terms of the evolving labor-management relationship. An analysis of alternative theories of American trade union development. PREREQUISITE: Economics 3210 .

**4340. Comparative Economic Systems. (3).**

An analytical study of the theoretical framework underlying major alternative economic systems—capitalism, socialism, communism, fascism—with the U.S., Sweden, the U.K., the U.S.S.R., and Spain used as examples. Attention is also directed to problems and difficulties associated with the integration of systems. Fall semester. PREREQUISITE: Economics 2120.

**4350. International Economics. (3). (493)**

An historical approach to the theory of international trade, with consideration given to the techniques of control over investment and trade, foreign exchange, balance of payments, and world interdependence. Fall semester. PREREQUISITE: Economics 3610.

**4410. Development of Economic Thought. (3). (411)**

A critical study of the historical development of economic thought. Attention is focused primarily on the emergence of Classical and Neoclassical thought, the several dissident schools of thought, and twentieth-century economic thought. Fall semester. PREREQUISITE: Economics 2120.

**4510. Economics of Transportation. (3). (304)**

A study of the development of the American transportation system. Transportation, services, rates and rate making; public aid and regulation. Spring semester. PREREQUISITE: Economics 2120.

**4610. Central Banking and Monetary Policy. (3).**

A critical examination of the history and economic function of central banks. Analysis of the role of monetary policy in achieving predetermined objectives, with emphasis on the interrelationships of monetary policy, central banking, and the financial markets. Spring semester. PREREQUISITE: Economics 3610.

**4710. Economics of Finance. (3).**

A survey of the important capital funds markets, the institutions and characteristics peculiar to them. The sources of supply and of demand for funds in each market, and the complex interrelations between the several markets are carefully analyzed. Both semesters. PREREQUISITE: Economics 3610.

**4720. Public Finance. (3). (451)**

The theory and practice of government expenditure, revenue, and debt, and the problem of integrating them into meaningful fiscal policy. Alternative forms of taxation are analyzed, especially from the standpoint of economic effects. Fall semester. PREREQUISITE: Economics 2120.

**4750. State and Local Finance. (3).**

Fiscal operations at state and local government levels in the United States. Attention is given to state and local government tax structures particularly, with special emphasis on property tax assessment and administration. Also a consideration of the fiscal relations of inter-governmental units, their expenditure elements, debt policy, budgeting, and financial administration. Spring semester. PREREQUISITE: Economics 4720.

**4810. Introduction to Economic Analysis I. (3).**

An introduction to the application of quantitative techniques of analysis to economic problems, including the identification of meaningful relationships, formulating usable quantitative statements about them, and developing relevant analytical methods. Fall semester. PREREQUISITE: One year of college mathematics and Economics 3310.

**4820. Introduction to Economic Analysis II. (3).**

A continuation of Economics 4810 with emphasis on the more complex and involved relationships of economic theory. Spring semester. PREREQUISITE: Economics 4810.

**4920. Senior Seminar in Economics. (3).**

A seminar coordinated by the Department Chairman and conducted by selected members of the Department and designed to integrate the several fields and course areas pursued by undergraduate majors into a meaningful whole. Required of all departmental majors in their last semester of undergraduate enrollment.

*Graduate Courses in Economics: Some of the courses described in the preceding section may be taken for graduate credit with the approval of the department chairman. For further details of the graduate program, see The Bulletin of The Graduate School.*

## ELECTRICAL ENGINEERING

PROFESSOR THOMAS DEWEY SHOCKLEY, JR., *Chairman*  
Room 206B, Engineering Building

Requirements for the B.S. in Electrical Engineering are listed on page 190.

**2201. Circuit Analysis I. (4).****(3001)**

Fundamental properties of electrical circuits; basic concepts and circuit elements; analysis methods and network theorems; sinusoidal steady-state response; introduction to transients. PREREQUISITE: Mathematics 2322.

*Three lecture, three laboratory hours per week.*

**3201. Circuit Analysis II. (4).****(4212)**

Continuation of Elec. 2201. Resonance, impedance and admittance functions, network theorems and analysis, the complex frequency plane, polyphase circuits and magnetic coupling. PREREQUISITE: Elec. 2201.

*Three lecture, three laboratory hours per week.*

**3202. Transform Methods in Network Analysis. (3).****(4215)**

Introduction to transform theory; application of Fourier, Laplace and Z-transforms to the solution of network problems. PREREQUISITE: Elec. 3201.

*Three lecture hours per week.*

- 3211. Electronics I. (4). (3002)**  
A study of active vacuum, gas and solid state devices as elements of electric circuits; linear representation and operation. PREREQUISITE: Elec. 2201.  
*Three lecture, three laboratory hours per week.*
- 3212. Electronics II. (4). (5201)**  
Power amplifiers; feedback amplifiers; oscillators; modulation and detection; rectifiers. PREREQUISITE: Elec. 3211.  
*Three lecture, three laboratory hours per week.*
- 4201. Energy Conversion I. (4). (4001)**  
Energy conversion by electromechanical methods, energy relations in singly and multiply excited magnetic systems, dynamic equations of magnetic systems, transformers and electrical machines. PREREQUISITE: Elec. 3201 or permission.  
*Three lecture, three laboratory hours per week.*
- 4202. Energy Conversion II. (4). (5211)**  
Continuation of Elec. 4201. Advanced A.C. machinery; power system analysis with emphasis on the solution of problems involving unbalanced faults on power transmission systems; impedance of machines and transformers. PREREQUISITE: Elec. 4201.  
*Three lecture, three laboratory hours per week.*
- 4205. Analog Simulation Techniques. (4).**  
Introduction to the basic concepts of component and system design of Analog Computers. Application of the Analog Computer in the solution of linear and nonlinear engineering problems. PREREQUISITE: Elec. 3202.  
*Three lecture, three laboratory hours per week.*
- 4211. Electromagnetic Field Theory I. (3). (4211)**  
Maxwell's equations, electrostatics, magnetostatics and time varying electromagnetic fields. PREREQUISITE: Mathematics 3391.  
*Three lecture hours per week.*
- 4212. Electromagnetic Field Theory II. (4). (5221)**  
Continuation of Elec. 4211. Plane, cylindrical and spherical waves; high frequency transmission lines; introduction to microwave and antenna theory. PREREQUISITE: Elec. 4211.  
*Three lecture, three laboratory hours per week.*
- 4221. Pulse and Digital Circuits. (4). (5202)**  
Timing, scanning, trigger and pulse circuits; astable, bistable and monostable multivibrators; binary counting circuits. PREREQUISITE: Elec. 3212.  
*Three lecture, three laboratory hours per week.*
- 4222. Introduction to Logical Design and Switching Circuits. (3).**  
Introduction to the analysis and design of logical switching circuits; logic, number systems, digital computer components. PREREQUISITE: Elec. 3212.  
*Three lecture hours per week.*
- 4231. Communication Theory. (3). (5231)**  
Frequency and time domain. Modulation, random signal theory; auto-



correlation; basic information theory, noise, communication systems. PREREQUISITE: Elec. 3212.

*Three lecture hours per week.*

**4241. Physical Electronics. (3). (5222)**

Fundamental particles: Quantum concepts; statistics; crystal structure; thermal, dielectric, magnetic and optical properties of solids; solid state devices. PREREQUISITE: Elec. 3212.

*Three lecture hours per week.*

**4251. Control System Engineering. (4). (5212)**

General equations of physical linear systems and their transfer functions. Transient analysis and stability of servo systems. The Bode plot, Nichols chart, Nyquist plot, Routh-Hurwitz criterion, root locus method, introduction to compensation techniques and systems in state space. PREREQUISITE: Elec. 3202, Elec. 4201.

*Three lecture, three laboratory hours per week.*

**4991. Electrical Engineering Projects I. (1-3).**

Independent investigation of a problem selected in consultation with instructor; report required. PREREQUISITE: Senior standing.

**4992. Electrical Engineering Projects II. (1-3).**

Continuation of Elec. 4991. Design, construction and testing of project investigated in Elec. 4991; report required. PREREQUISITE: Elec. 4991.

## ELEMENTARY EDUCATION

PROFESSOR HARRY B. MILLER, *Chairman*

*Room 417, The College of Education Building*

The Department of Elementary Education offers a major in elementary education and minors in elementary education and library service; requirements are listed on page 181.

Letters following each subheading are prefixes used by The College of Education.

### ELEMENTARY EDUCATION (ELED)

**3211. Materials and Methods, Kindergarten through Third Grade. (3). (383)**

A study of materials and instructional techniques unique to teaching children in kindergarten through third grade.

**3241. The Teaching of Language Arts in the Elementary School. (3). (385)**

*(formerly The Teaching of Reading and the Other Language Arts in the Elementary School)*

The basic concepts of language teaching and learning with a consideration of all the language arts—listening, speaking, reading, and writing—placing particular emphasis on their interrelationships. PREREQUISITES: Education 2011, 2111, 3121.

**3251. Teaching Methods in Elementary School Mathematics. (3). (386)**

A study of newer math concepts and activities to be used in developing understanding. PREREQUISITES: Education 2011, 2111, and 3121.

- 3261. Teaching Methods in Elementary School Science. (3). (386)**  
Participation in experiences which emphasize the process approach in the development of basic science concepts, including the area of resource use. Involvement with variety of materials. PREREQUISITES: Education 2011, 2111, and 3121.
- 3271. Teaching Methods in Elementary School Social Studies. (3). (387)**  
A basic course involving methods and materials appropriate to each developmental level of the elementary school child. PREREQUISITE: Education 2011, 2111, and 3121.
- 3411. Survey of Preschool Education. (3). (382)**  
Philosophy and theories of preschool education; physical, emotional, social, and mental development of preschool children; keeping of records; working with parents; selecting equipment and supplies; curriculum content; planning a course of study. PREREQUISITE: Education 2011, 2111, and 3121.
- 3901. Special Problems in Instruction. (1 to 3). (351)**  
Individual investigation in the area of instruction. PREREQUISITE: experience as a teacher or satisfactory evidence of being qualified to benefit from such a course.
- 4242. The Teaching of Developmental Reading. (3). (446)**  
(formerly Improving the Teaching of Reading)  
Theoretical background for developmental reading instruction, and practical consideration of methods and materials designed for teaching sequential reading skills in the primary and intermediate grades. PREREQUISITES: Education 3241 or classroom experience.
- 4245. The Teaching of Children's Literature in the Elementary School. (3). (445)**  
A course designed to improve the methods of teaching children's literature in the elementary school, including units on story telling, dramatization, choral speech work, and the correlation of literature with the content subjects.
- 4252. The Teaching of Modern Mathematics in the Elementary School (Grades 1-8). (3). (443)**  
An advanced course acquainting prospective and experienced teachers with the mathematical processes required of the elementary school child and the reasons why certain methods are used.
- 4262. The Teaching of Natural Science in the Elementary School. (3). (442)**  
Current developments in elementary science education in both process and content. Examination of new curriculum materials and involvement in learning experiences appropriate for elementary school. Designed primarily for in-service teachers.
- 4421. Curriculum Problems and Trends in the Elementary School. (3). (462)**  
This course deals with general educational objectives and means of achieving them; the roles of the various school subjects and their interrelationship; an examination of newer trends and their application in various schools in the community.

- 4721. Workshop for Teachers in the Elementary School. (3 to 6). (429)**  
A course designed to meet the needs of in-service teachers by offering an opportunity to work cooperatively on problems which are real to teaching situations and which meet the needs of the individual. **PRE-REQUISITE:** teaching experience and permission of the director of the workshop.
- 4751. Workshop in the Reading Program. (3 to 6). (448)**  
Through the media of group study, discussion, demonstrations, directed observation, and laboratory work, participants will formulate plans for reading programs, including content, methods and techniques, materials, and evaluative criteria.
- 4761. Aerospace Education in Schools. (3). (435)**  
The purpose of this course is to provide teachers with aerospace knowledge and experiences and ways of utilizing this knowledge and experience in the classroom.
- \*4811. Directed Student Teaching in the Kindergarten. (3 to 6). (423)**  
Observation of the growth and development of pupils and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups. Recommended hours: 6
- \*4821. Directed Student Teaching in the Elementary School. (3 to 9). (425)**  
Observation of the growth and development of pupils and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups.
- \*4822. Directed Student Teaching in the Elementary School. (3 to 6). (426)**  
For the student who has completed six semester hours or less of student teaching in the elementary school and desires some additional experience.

\*For detailed information concerning the requirements for admission to the student teaching program, see page 176.

*Graduate courses in Elementary Education: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

#### LIBRARY SERVICE (LIBS)

- 3111. Books and Related Library Materials for Children. (3). (321)**  
Primarily a reading course based on materials suitable for elementary school children; leisure-time interests and curricular needs; criteria for evaluating books and related materials such as magazines, phonograph records, radio programs, and films; aids used in their selection; types of literary and informational books, authors, illustrators, and publishers; story-telling and other devices for encouraging reading.
- 3121. Books and Related Library Materials for Young People and Adults. (3). (322)**  
This course is presented in the same manner as Library Service 3111, but is adapted to materials on the junior and senior high school levels; attention is also given to adult books to enable librarians to work more effectively with faculty and community groups.

- 3131. Reference Materials. (3). (323)**  
A study of reference materials useful in various areas of the elementary and secondary school curriculum; basic reference materials in every general field are studied, thus making the course desirable for teachers as well as librarians; practice in handling reference questions.
- 4231. Organization of Materials. (3). (411)**  
Instruction and practice in simplified procedures for acquisition, preparation, organization, and circulation of books and related library materials.
- 4232. Cataloging and Classification. (3). (412)**  
An introduction to the principles of classification of books; simplified techniques of cataloging books and other materials by the abridged Dewey decimal system; the use of printed cards.
- 4331. School Library Administration. (3). (421)**  
The place of the library in the instructional and guidance program of the school and the philosophy and purposes of libraries and librarianship, including such problems as standards and evaluation, public relations and publicity, support, housing and equipment, training of assistants, and library-study hall relationships; field trips to different types of libraries.

*Graduate courses in Library Service: For details of the graduate program, see The Bulletin of The Graduate School.*

## ENGINEERING

ROGER E. NOLTE, *Dean*

*Room 201D, Engineering Administration Building*

Course listings for the Department of Civil Engineering begin on page 236; course listing for the Department of Electrical Engineering begin on page 242; and course listings for the Department of Mechanical Engineering begin on page 298. Requirements for engineering degrees are listed on pages 187-198.

### ENGINEERING CORE COURSES

- 1001. Introduction to Engineering. (1).**  
History and nature of engineering as a profession, including industrial practices, academic programs, and career planning. The use of logic as applied to engineering problems and systems. **PREREQUISITE:** Freshmen having engineering inclinations.  
*One lecture hour per week.*
- 1011. Engineering Computer Programming. (2).**  
Introduction to the role of the digital computer in engineering systems; applications of computer systems to analysis and design; introduction to computer programming languages.  
*One lecture, three laboratory hours per week.*
- 1021. Engineering Graphics. (2).**  
Role of graphical communication in engineering practice; sketching and drafting techniques used in design; elements of descriptive geometry.  
*One lecture, three laboratory hours per week.*

# ENGLISH

PROFESSOR WILLIAM OSBORNE, *Chairman*  
Room 467, Patterson Hall

*English Honors Program.* Freshman students with high ACT scores are issued invitations to participate in the honors program. The program is open to all qualified students during their freshman and sophomore years. During the junior and senior years, it is restricted to English majors, and it involves participation in special courses, seminars, and research projects.

Requirements for the major and minor in English are listed on page 154. All candidates for graduation at Memphis State University are required to complete English 1101, 1102, 2101, 2102, or their equivalent. These courses must be scheduled consecutively through the freshman and sophomore years, or until completed, and may not be dropped from the student's course load except under very special conditions. They must be taken in sequence; no credit will be allowed on any course until all the preceding courses have been completed successfully.

**0100. English for Foreign Students. (0).**

Training in the composition of English sentences and paragraphs with some attention to conversation.

**1101. English Composition. (3). (111)**

Training in the writing of English sentences, paragraphs, and longer compositions related to the reading of essays and short fiction.

**1102. English Composition and Analysis. (3). (112)**

Further training in English composition related to an introductory study of poetry, drama, and the novel. PREREQUISITE: English 1101 or equivalent.

**2101. English Literature. (3). (211)**

Selected readings in English literature from the beginning through the eighteenth century with attention to the development of forms and to the cultural context. PREREQUISITES: English 1101 and 1102 or the equivalent.

**2102. English Literature. (3). (212)**

Selected readings in English literature from the Romantic period to the present with continuing attention to the development of forms and to the cultural context. PREREQUISITES: English 1101, 1102, and 2101 or the equivalent.

*Note: No student may enroll for an upper-division English course until he has completed satisfactorily English 1101, 1102, 2101, 2102, or the equivalent.*

**3211. The Medieval Period. (3).**

Readings in English authors chiefly of the fourteenth and fifteenth centuries related to study of Middle English.

**3212. The Renaissance. (3). (350)**

A study of the poetry and prose, chiefly non-dramatic, of the sixteenth and the early seventeenth century.

**3213. The Seventeenth Century. (3). (340)**

Poetry and prose from Donne and Bacon through Milton studied in relation to political and intellectual events of the period.



3214. **The Eighteenth Century.** (3). (341)  
Poetry and prose from Dryden through Blake; detailed study of representative works and attention to theoretical aspects of neoclassicism and the advent of romanticism.
3221. **The Romantic Period.** (3). (342)  
The poetry of Wordsworth, Coleridge, Shelley, Keats, and Byron, with collateral readings in the prose of the period.
3222. **Victorian Poetry.** (3). (351)  
A study of major English poets writing between 1830 and 1900 with some consideration of the social, intellectual, and aesthetic interests of the period.
3223. **Victorian Prose.** (3). (352)  
A study of English prose between 1830 and 1900 with emphasis on critical and philosophical works.
3224. **The Twentieth Century.** (3).  
A study of the major literary movements and techniques of English and American literature in the twentieth century.
3321. **American Literature.** (3). (301)  
A survey of American literature from the beginning through the Romantic period.
3322. **American Literature.** (3). (302)  
A survey of American literature from the advent of Realism to the present.
3341. **The American Novel.** (3). (311)  
Reading of representative American novels of the nineteenth century with consideration of their relation to English and European work and to American developments in the genre.
3342. **The American Novel.** (3). (312)  
Reading of representative American novels from 1900 to the present, with attention to relevant literary and cultural developments in Europe and America.
3411. **European Literature.** (3).  
Major literary works of western civilization from Homer through the Renaissance, read in English translation.
3412. **European Literature.** (3).  
Major literary works of western civilization from 1600 to the present, read in English translation.
3441. **The Continental Novel.** (3). (313)  
Critical analysis and appreciation of representative novels chosen from the works of important European writers from 1850 to 1950.
3501. **English Grammar.** (3). (442)  
A brief introduction to linguistic scholarship followed by a survey of current grammatical theory, a review of English grammatical terminology, and a consideration of the relation between grammar and style.
3701. **Theory and Practice in Literary Criticism.** (3). (400)  
An introduction to theory of literature related to exercises in practical criticism.

4231. **Chaucer.** (3). (421)  
A study of Chaucer as a literary artist, including a reading of representative works and discussion of their philosophical and social context.
4232. **Shakespeare's Tragedies.** (3). (432)  
Reading of all Shakespeare's tragedies, detailed critical examination of at least five of them, and consideration of the principles governing tragedy.
4233. **Shakespeare's Comedies and Histories.** (3). (433)  
A study of the best-known comedies and histories.
4234. **Milton.** (3). (422)  
A study of Milton's development as a literary artist, with emphasis on his poetry but with some attention to his prose.
4241. **The English Novel.** (3). (451)  
Reading of major English novels from the Renaissance to the mid-nineteenth century related to study of the origin and development of the genre.
4242. **The English Novel.** (3). (452)  
A study of major English novels from the mid-nineteenth century to the present with attention to developments in the genre.
4251. **English Drama.** (3). (411)  
A study of the development of the genre in England from medieval times to 1642.
4252. **English Drama.** (3). (412)  
A study of English drama from 1660 to the present, with attention to developments in the genre.
4321. **American Literature: Nationalism and Romanticism.** (3).  
A study of selected American writers from the national and romantic periods with background readings in philosophical, political, and critical sources.
4322. **American Literature: Realism and Naturalism.** (3).  
A study of selected American writers from the periods of realism and naturalism with background readings in philosophical, political, and critical sources.
4323. **Southern Literature.** (3). (470)  
A study of Southern literature from its beginning to the present with emphasis on twentieth-century authors.
4351. **American Drama.** (3). (413)  
The development of American drama as a literary form studied in relation to the English and European tradition and to currents in American thought.
4371. **American Negro Literature.** (3).  
A study of American Negro writing, from its beginnings to the present, with emphasis upon major authors.
4423. **Contemporary Poetry.** (3).  
A study of British and American poetry from about 1900 to the present.

- 4441. The Short Story. (3). (331)**  
Reading of European, English, and American short stories of the nineteenth and twentieth centuries related to study of the origins and development of the genre.
- 4461. Biblical Literature. (3). (380)**  
A study of selected books from the Old and New Testaments with emphasis on their literary value and with consideration of the place of the Bible in world literature.
- 4501. History of the English Language. (3). (441)**  
A study of the historical development of English with attention to changes in sound, vocabulary, syntax, and meaning.
- 4601. Creative Writing. (3). (372)**  
Discussion of technique of fiction and verse, analysis of models, and criticism of student work. PREREQUISITE: permission of instructor.
- 4602. Expository Writing. (3).**  
Practical training in writing essays, articles and reports. Analysis of readings, with emphasis on organization, clarity, effectiveness.
- 4603. Advanced Creative Writing. (3).**  
Continued discussions of the techniques of fiction and poetry, analysis of models, and criticism of student work. PREREQUISITE: English 4601.

*Graduate courses in English: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

## FINANCE, INSURANCE AND REAL ESTATE

PROFESSOR JAMES A. COLLIER, *Chairman*

*Room 123, The College of Business Administration Building*

Requirements for the major and minor are listed on page 168.

- 3010. Business Law I. (3). (301)**  
Nature and classification of law, contracts, negotiable instruments. Study of selected cases. Both semesters. PREREQUISITE: junior classification or permission of the instructor.
- 3020. Business Law II. (3). (302)**  
Business organization, personal property, trade regulations, with emphasis on case studies. Both semesters. PREREQUISITE: FIR 3010.
- 3310. Real Estate. (3). (331)**  
Real estate law, property description, methods of transferring property, joint ownership, tax sales and title to property, inheritance of real property. Spring semester. PREREQUISITE: junior classification or permission of the instructor.
- 3410. Business Finance. (3).**  
Financial analysis of the firm; acquisition and effective utilization of funds, and other managerial aspects of business finance. Both semesters. PREREQUISITE: Accounting 2020.

- 3710. Investments. (3). (Formerly Economics 462)**  
The principles of investment in stocks and bonds and their application to specific classes of investments. Both semesters. PREREQUISITE: Accounting 2020.
- 3810. Principles of Risk and Insurance. (3).**  
Theory of risk, risk management, and insurance practice and problems in the fire, liability, automobile, marine, surety, life, health and accident lines. Both semesters. PREREQUISITE: Junior classification or permission of the instructor.
- 4310. Real Estate Law. (3). (431)**  
This course covers law and legal instruments as applied to real estate and is designed to serve the needs of property owners and those engaged in the real estate business. PREREQUISITE: FIR 3310.
- 4320. Real Estate Finance. (3). (432)**  
Examination and analysis of the sources of funds for financing all kinds of real estate transactions, including FHA and VA types. PREREQUISITE: FIR 3310.
- 4340. Real Estate Appraisal. (3). (434)**  
The fundamentals of appraising residential, commercial, and industrial real estate. PREREQUISITE: FIR 3310.
- 4610. Corporate Financial Problems. (3). (441)**  
Advanced treatment of financial management with emphasis on small and medium-sized enterprise and the forces underlying determination of policy; financial problems are considered in connection with re-funding, reorganization, mergers, and consolidations. Both semesters. PREREQUISITE: FIR 3410.
- 4810. Property and Casualty Insurance. (3). (435)**  
The forms and functions of fire, marine, automobile, general liability, and other types of property and casualty insurance with emphasis on their application to commercial and industrial occupancies. A survey of current underwriting practice. PREREQUISITE: FIR 3810.
- 4820. Life and Health Insurance. (3). (436)**  
The functions of life and health insurance with emphasis upon the need for insurance and the service of life and health insurance to the American family and community. A study of the mechanics of private and public insurance and annuities. PREREQUISITE: FIR 3810.
- 4840. Advanced Property and Casualty Insurance. (3).**  
Company and industry functions other than contracts, including rating, rate-making, reserves, auditing, underwriting, reinsurance, claims, production, engineering, and governmental supervision. PREREQUISITE: FIR 3810.
- 4850. Social Insurance. (3).**  
The nature and causes of economic insecurity in our society with emphasis on the broader aspects of public and private programs: the Social Security Act, Unemployment Compensation, Workmen's Compensation, Medicare and other approaches. The course de-emphasizes detailed facts and statistics which are otherwise readily available from various governmental agencies. PREREQUISITE: junior standing.

**4860. Employee Benefit Programs. (3).**

Group insurance, the essence of fringe benefits for employees; a study of group life insurance, group health and accident insurance, group pension and profit-sharing plans. PREREQUISITE: junior standing.

**4870. Risk Management. (3).**

Problems of the risk manager in small and large firms, methods of handling risk that serve as alternatives to obtaining insurance, and a brief survey of insurance as a standard for comparisons. PREREQUISITE: junior standing.

**4910. Problems in Finance, Insurance, or Real Estate. (1-3).**

Student will carry on approved research projects in his major area under supervision of staff members. PREREQUISITE: Senior standing and permission of the department chairman.

*Graduate courses in Finance, Insurance, and Real Estate: Some of the 4000 courses described in the preceding section may be taken for graduate credit. For further details of the graduate program see The Bulletin of The Graduate School.*

## FOREIGN LANGUAGES

ASSOCIATE PROFESSOR FRANKLIN O. BRANTLEY, *Acting Chairman*  
Room 230A, Jones Hall

The Department of Foreign Languages offers majors and minors in French, German, Latin, and Spanish; a minor is also offered in Greek, Italian, and Russian. Requirements are listed on page 155.

Two types of programs for learning language skills are available in each modern language. The nature of each program is as follows:

(1) *The Regular Sequence* is designed to provide principally a reading knowledge of the language and consists of six three-semester-hour courses: 1101, 1102, 2201, 2202, 3333, and 3334;

(2) *The Intensive Sequence* is designed to develop equally the four language skills (listening, speaking, reading, and writing), and consists of five courses, with semester-hour credit as indicated in parentheses: 1111 (5), 1112 (5), 2211 (5), 2212 (3), and 2213 (2). In the fourth semester the student may take either 2212 alone or 2212 and 2213 concurrently. However, 2213 may not be taken without 2212. *It will not ordinarily be possible for the student to change from one sequence to another.* Details for specific requirements in foreign languages for the various degrees offered by the University are explained on page 139.

Language laboratory requirements differ in the two programs. For 1101 and 1102 in the *Regular Sequence* the instructor may require the student to attend one hour each week in the language laboratory. For all courses in the *Intensive Sequence* students must attend the language laboratory as specified in each course description.

### CLASSICS

**3021. Latin and Greek Etymology. (3). (323)**

Origin and derivation of words, especially those used in medicine and science. This course is given in English and is open to all students without prerequisite. It may not be used to satisfy any part of the foreign language requirement nor does it apply toward a major in classical languages.



## FRENCH

- 1101. Elementary French. (3). (111)**  
Elements of grammar and pronunciation, with the reading of simple selections.
- 1102. Elementary French. (3). (112)**  
A continuation of French 1101, with reading selections of increasing difficulty.
- 1111. Intensive Elementary French. (5).**  
Intensive initial training in listening, speaking, reading, and writing.  
*Five class periods and three half-hour laboratory sessions per week.*
- 1112. Intensive Elementary French. (5).**  
Continuation of intensive training in listening, speaking, reading and writing. PREREQUISITE: French 1111 or the equivalent.  
*Five class periods and three half-hour laboratory sessions per week.*
- 2201. Intermediate French. (3). (211)**  
A comprehensive review of French grammar, exercises in writing, and readings in French literature and culture.
- 2202. Intermediate French. (3). (212)**  
A continuation of French 2201, with more advanced readings.
- 2211. Intensive Intermediate French. (5).**  
Reinforcement and continued intensive training in listening, speaking, reading, and writing. PREREQUISITE: French 1112 or the equivalent.  
*Five class periods and three half-hour laboratory sessions per week.*
- 2212. Intensive Intermediate French. (3).**  
Readings, active discussions, and written exercises on French literary and cultural highlights. PREREQUISITE: French 2211 or the equivalent.  
*Three class periods and two half-hour laboratory sessions per week.*
- 2213. Active French Usage. (2).**  
Optional companion course to French 2212. Credit allowed only if student completes successfully French 2212 in same semester. Stress on idiomatic usage in conversation and writing. PREREQUISITE: French 2211 or the equivalent. COREQUISITE: French 2212.  
*Two class periods and one half-hour laboratory session per week.*
- 3301. Advanced Conversation and Composition. (3). (321)**
- 3302. Advanced Conversation and Composition. (3). (322)**  
A continuation of French 3301. PREREQUISITE: French 3301.
- 3333. Readings in French Culture and Civilization. (3).**  
A comprehensive study of French culture designed for non-majors. This course will not meet any part of the requirement for a major or minor in French. PREREQUISITE: French 2202 or the equivalent.
- 3334. Readings in French Literary Masterpieces. (3).**  
A thorough reading of certain masterpieces of French literature. Designed for non-majors, this course will not meet any part of the requirement for a major or minor in French. PREREQUISITE: French 2202 or the equivalent.

3401. **French Civilization. (3).**  
The culture of France as reflected in its history, social institutions, art, and music. PREREQUISITE: French 2212 or the equivalent.
3411. **Survey of French Literature. (3).** (311)  
Introduction to the civilization of France through lectures and the readings of representative literary works and writers from the beginnings through the eighteenth century.
3412. **Survey of French Literature. (3).** (312)  
A continuation of the study of French civilization through lectures and reading of representative works of the major writers in the nineteenth and twentieth centuries.
3421. **The Seventeenth Century. (3).** (331)  
A study of the underlying principles of French Classicism in general and of the theatre in particular, with emphasis on works of Corneille, Molière, and Racine and their relationship to the critical theories of Boileau.
3422. **The Seventeenth Century. (3).** (332)  
A study of the representative works in the classical genres, emphasizing the later masterpieces of Molière and Racine, and selected works of Mme. de La Fayette, La Fontaine, Mme. de Sévigné, La Bruyère, and La Rochefoucauld.
4301. **French Phonetics. (3).**  
The theory and practice of French sounds; especially recommended for teachers of French. PREREQUISITE: Three years of college French or permission of the instructor.
4305. **French Stylistics. (3).**  
Translations of English prose into French with an emphasis on style. PREREQUISITE: French 3302.
4421. **The Eighteenth Century. (3).** (441)  
The novel from Lesage through the eighteenth century and the drama from Lesage through the theatre of Beaumarchais.
4422. **Liberal Ideas in the Eighteenth Century. (3).** (442)  
Study of philosophical thought from the revocation of the Edict of Nantes to the French Revolution, with attention given to Bayle, Montesquieu, Voltaire, Diderot, and Rousseau.
4431. **The Modern French Novel. (3).** (411)  
The French novel from the Revolution to the twentieth century, treating the movements of Romanticism, Realism, and Naturalism as they are reflected in the works of such authors as Balzac, Stendhal, Flaubert, and Zola.
4432. **The Contemporary French Novel. (3).** (412)  
A general survey of the twentieth-century French novel, treating the works of such authors as Proust, Gide, Mauriac, Malraux, Sartre, Camus, Maurois, and others.
4451. **The Modern French Drama. (3).** (421)  
French drama from 1800 to 1870, including such authors as Hugo, Vigny, Musset, Scribe, Augier, and Dumas *filis*.

4452. **The Contemporary French Drama.** (3). (422)  
 From Becque and his school, the *Théâtre Libre*, and Rostand to the present, with emphasis on the twentieth-century drama and such playwrights as Pagnol, Claudel, Tristan Bernard, Giraudoux, Anouilh, Montherlant, Camus, Sartre, Cocteau, and others.
4471. **Nineteenth-Century Poetry.** (3). (451)  
 French poetry from Chénier through the Parnassians and the Symbolists.
4501. **Applied French Linguistics.** (3).  
 Application of modern linguistic theories to learning French. **PREREQUISITE:** French 3301.

*Graduate Courses in French: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

#### GERMAN

1101. **Elementary German.** (3). (111)  
 Elements of grammar and pronunciation, with the reading of simple selections.
1102. **Elementary German.** (3). (112)  
 A continuation of German 1101, with reading selections of increasing difficulty.
1111. **Intensive Elementary German.** (5).  
 Intensive initial training in listening, speaking, reading, and writing.  
*Five class periods and three half-hour laboratory sessions per week.*
1112. **Intensive Elementary German.** (5).  
 Continuation of intensive training in listening, speaking, reading, and writing. **PREREQUISITE:** German 1111 or the equivalent.  
*Five class periods and three half-hour laboratory sessions per week.*
2201. **Intermediate German.** (3). (211)  
 A comprehensive review of German grammar, exercises in writing, and readings in German literature and culture.
2202. **Intermediate German.** (3). (212)  
 A continuation of German 2201, with more advanced readings.
2203. **Scientific German.** (3). (222)  
 Readings in medical and scientific German. **PREREQUISITE:** German 2201.
2211. **Intensive Intermediate German.** (5).  
 Reinforcement and continued intensive training in listening, speaking, reading, and writing. **PREREQUISITE:** German 1112 or the equivalent.  
*Five class periods and three half-hour laboratory sessions per week.*
2212. **Intensive Intermediate German.** (3).  
 Readings, active discussions, and written exercises on German literary and cultural highlights. **PREREQUISITE:** German 2211 or the equivalent.  
*Three class periods and two half-hour laboratory sessions per week.*

**2213. Active German Usage. (2).**

Optional companion course to German 2212. Credit allowed only if student completes successfully German 2212 in same semester. Stress on idiomatic usage in conversation and writing. PREREQUISITE: German 2211 or the equivalent. COREQUISITE: German 2212.

*Two class periods and one half-hour laboratory session per week.*

**3301. Advanced Conversation and Composition. (3). (331)****3333. Readings in German Culture and Civilization. (3).**

A comprehensive study of German culture designed for non-majors. This course will not meet any part of the requirement for a major or minor in German. PREREQUISITE: German 2202 or the equivalent.

**3334. Readings in German Literary Masterpieces. (3).**

A thorough reading of certain masterpieces of German literature. This course is designed for non-majors and will not meet any part of the requirement for a major or minor in German. PREREQUISITE: German 2202 or the equivalent.

**3410. Introduction to German Literature and Culture, I. (3).**

From the beginnings to 1600. PREREQUISITE: German 2212 or equivalent.

**3411. Introduction to German Literature and Culture, Part II. (3). (311)**

From the Baroque period through the Romantic Period (1600-1830).

**3412. Introduction to German Literature and Culture, Part III. (3). (312)**

From the *Biedermeier* period to the present day (1830-today).

**3451. Nineteenth-Century Drama. (3). (355)**

Selected plays of Kleist, Grillparzer, and Hebbel.

**3461. Nineteenth-Century Prose and Poetry. (3). (353)**

A study of selected works.

**4401. Early German Literature. (3).**

German literature of the medieval and pre-Renaissance periods. PREREQUISITES: Two upper-division German courses.

**4402. Humanism, Renaissance, and Reformation. (3).**

From the Renaissance through the Age of Luther. PREREQUISITE: Two upper-division German courses.

**4421. The Baroque Period. (3).**

Studies in the writings of important authors of the Baroque period.

**4441. The Age of Enlightenment and *Sturm und Drang*. (3).**

A study of selected works. PREREQUISITE: German 3412 or permission of the instructor.

**4461. Twentieth Century Prose and Poetry. (3). (451)**

A study of selected works.

**4462. Twentieth Century Drama. (3). (452)**

A study of selected plays.

4481. **The Classical Period, I.** (3). (411)  
A study of the major writings of Schiller.
4482. **The Classical Period, II.** (3). (412)  
A study of the major writings of Goethe.
4501. **Applied German Linguistics.** (3).  
Application of modern linguistic theories to learning German.  
PREREQUISITE: German 3301.
4511. **The German Language: Development and Structure.**  
Study of the German language in its various stages of development.  
PREREQUISITE: German 3301.

*Graduate courses in German: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

## GREEK

1101. **Elementary Greek.** (3). (111)  
Elements of Greek grammar and syntax; practice in reading and translation.
1102. **Elementary Greek.** (3). (112)  
Completion of basic grammar and syntax, with additional readings.
2201. **Xenophon.** (3). (211)  
Reading and interpretation of Xenophon's *Anabasis*.
2202. **Homer.** (3). (212)  
Reading and interpretation of Book IX of Homer's *Odyssey*.
3111. **Herodotus.** (3). (311)  
Reading and analysis of Books VI-VIII of Herodotus' *History*.
3511. **Euripides.** (3). (321)  
Reading and analysis of the dramas *Alcestis* and *Medea*.
3911. **Plato's *Apology*, *Crito*.** (3).  
Reading and analysis of the dialogues of Plato which give a prelude to the death of Socrates.
3912. **Plato's *Republic*.** (3).  
Reading and analysis of selected books of Plato's *Republic*.

## ITALIAN

1101. **Elementary Italian.** (3). (111)  
Elements of grammar and pronunciation, with the reading of simple selections.
1102. **Elementary Italian.** (3). (112)  
A continuation of Italian 1101, with selections of increasing difficulty.
1111. **Intensive Elementary Italian.** (5).  
Intensive initial training in listening, speaking, reading, and writing.  
*Five class periods and three half-hour laboratory sessions per week.*



**1112. Intensive Elementary Italian. (5).**

Continuation of intensive training in listening, speaking, reading, and writing. PREREQUISITE: Italian 1111 or the equivalent.

*Five class periods and three half-hour laboratory sessions per week.*

**2201. Intermediate Italian. (3).**

A comprehensive review of Italian grammar, exercises in writing, and readings in Italian literature and culture.

**2202. Intermediate Italian. (3).**

A continuation of Italian 2201, with more advanced readings.

**2211. Intensive Intermediate Italian. (5).**

Reinforcement and continued intensive training in listening, speaking, reading, and writing. PREREQUISITE: Italian 1112 or the equivalent.

*Five class periods and three half-hour laboratory sessions per week.*

**2212. Intensive Intermediate Italian. (3).**

Reading, active discussions, and written exercises on Italian literary and cultural highlights. PREREQUISITE: Italian 2211 or the equivalent.

*Three class periods and two half-hour laboratory sessions per week.*

**3411. Survey of Italian Literature. (3).**

The development of the Florentine dialect as the literary language of Italy. The study of representative writers from the thirteenth to the eighteenth century. Dante. PREREQUISITE: Italian 2202 or permission of the instructor.

**3412. Survey of Italian Literature. (3).**

A study of outstanding writers of the eighteenth, nineteenth, and twentieth centuries, with special attention to Goldoni, Alfieri, Leopardi, Manzoni, Pirandello, and Benedetto Croce. PREREQUISITE: Italian 3411 or permission of the instructor.

**4421. The Sixteenth Century. (3).**

The classic period of Italian literature: Ariosto, Machiavelli, Cellini, Sasso, and others.

**4451. The Nineteenth Century. (3).**

Literary movements and writers of the nineteenth century from Monti and Foscolo to Pascoli and D'Annunzio.

## LATIN

**1101. Elementary Latin. (3). (111)**

Elements of grammar; practice in Latin composition and translation.

**1102. Elementary Latin. (3). (112)**

Completion of elementary Latin grammar, with additional readings.

**2201. Caesar. (3). (211)**

Reading and analysis of Caesar's *Gallie Wars*, Books I, IV, V.

**2202. Cicero. (3). (212)**

Reading and analysis of selected orations of Cicero.

**3111. Livy. (3). (311)**

Reading and analysis of Livy's *History*, Books XXI, XXII.

3211. **Vergil.** (3). (352)  
Reading and analysis of the *Aeneid*.
3411. **Pliny, Martial.** (3). (362)  
Reading and analysis of the *Letters* of Pliny and the *Epigrams* of Martial.
3611. **Horace's Satires.** (3). (312)
3811. **Ovid.** (3). (351)  
Reading and analysis of the myths in Ovid's *Metamorphoses*.
3911. **Lucretius.** (3). (321)  
Reading and analysis of Roman philosophy in Lucretius' *De Rerum Natura*, Books I and III.
3912. **Cicero.** (3). (361)  
Reading and analysis of *De Amicitia* and *De Senectute*.
4411. **Roman Letter Writers.** (3). (413)  
Reading and analysis of Cicero's *Letters*.
4611. **Roman Satire.** (3). (421)  
Reading and analysis of Juvenal's *Satires*.
4711. **Catullus, Horace.** (3). (411)  
Reading and analysis of Catullus' *Lyric Poems* and Horace's *Odes*.

## PORTUGUESE

1101. **Elementary Portuguese.** (3).  
Elements of grammar and pronunciation, with the reading of simple selections.
1102. **Elementary Portuguese.** (3).  
A continuation of Portuguese 1101, with reading selections of increasing difficulty.
2201. **Intermediate Portuguese.** (3).  
A comprehensive review of Portuguese grammar with readings and exercises designed to increase the student's vocabulary, contribute to his mastery of idiomatic constructions, and introduce him to Portuguese and Brazilian literature. PREREQUISITE: Portuguese 1102 or the equivalent.
2202. **Intermediate Portuguese.** (3).  
A continuation of Portuguese 2201 with further readings in Portuguese and Brazilian literature; conversation and composition designed to enlarge the student's vocabulary and improve his pronunciation. PREREQUISITE: Portuguese 2201 or the equivalent.

## RUSSIAN

1101. **Elementary Russian.** (3). (111)  
Elements of grammar and pronunciation, with the reading of simple selections.
1102. **Elementary Russian.** (3). (112)  
A continuation of Russian 1101, with reading selections of increasing difficulty.

- 1111. Intensive Elementary Russian. (5).**  
Intensive initial training in listening, speaking, reading, and writing.  
*Five class periods and three half-hour laboratory sessions per week.*
- 1112. Intensive Elementary Russian. (5).**  
Continuation of intensive training in listening, speaking, reading, and writing. PREREQUISITE: Russian 1111 or the equivalent.  
*Five class period and three half-hour laboratory sessions per week.*
- 2201. Intermediate Russian. (3). (211)**  
A comprehensive review of Russian grammar, exercises in writing, and readings in Russian literature and culture.
- 2202. Intermediate Russian. (3). (212)**  
A continuation of Russian 2201, with more advanced readings.
- 2211. Intensive Intermediate Russian. (5).**  
Reinforcement and continued intensive training in listening, speaking, reading, and writing. PREREQUISITE: Russian 1112 or the equivalent.  
*Five class periods and three half-hour laboratory sessions per week.*
- 2212. Intensive Intermediate Russian. (3).**  
Readings, active discussions, and written exercises on Russian literary and cultural highlights. PREREQUISITE: Russian 2211 or the equivalent.  
*Three class periods and two half-hour laboratory sessions per week.*
- 3411. Survey of Russian Literature. (3).**  
Survey of Russian literature from the earliest chronicles, folktales, and legends through the classical period to the end of the eighteenth century.
- 3412. Survey of Russian Literature. (3).**  
Survey of Russian literature from the beginning of the nineteenth century to the Soviet period. Authors include Pushkin, Gogol, Lermontov, Turgenev, Dostoevski, Tolstoi, and Chekhov.
- 3441. Russian Literature of the Nineteenth Century. (3).**  
An introduction to the authors and work which herald the Golden Age of Russian Literature, with representative works from Pushkin, Lermontov, Gogol, and Turgenev.
- 3442. Russian Literature of the Nineteenth Century. (3).**  
Readings in representative works of Dostoevski, Tolstoi, Chekov, and Gorki.

## SPANISH

- 1101. Elementary Spanish. (3). (111)**  
Elements of grammar and pronunciation, with the reading of simple selections.
- 1102. Elementary Spanish. (3). (112)**  
A continuation of Spanish 1101, reading selections of increasing difficulty.

- 1111. Intensive Elementary Spanish. (5).**  
Intensive initial training in listening, speaking, reading, and writing.  
*Five class periods and three half-hour laboratory sessions per week.*
- 1112. Intensive Elementary Spanish. (5).**  
Continuation of intensive training in listening, speaking, reading, and writing. PREREQUISITE: Spanish 1111 or the equivalent.  
*Five class periods and three half-hour laboratory sessions per week.*
- 2201. Intermediate Spanish. (3). (211)**  
A comprehensive review of Spanish grammar, exercises in writing, and readings in Hispanic literature and culture.
- 2202. Intermediate Spanish. (3). (212)**  
A continuation of Spanish 2201, with more advanced readings.
- 2211. Intensive Intermediate Spanish. (5).**  
Reinforcement and continued intensive training in listening, speaking, reading, and writing. PREREQUISITE: Spanish 1112 or the equivalent.  
*Five class periods and three half-hour laboratory sessions per week.*
- 2212. Intensive Intermediate Spanish. (3).**  
Readings, active discussions, and written exercises on Spanish literary and cultural highlights. PREREQUISITE: Spanish 2211 or the equivalent.  
*Three class periods and two half-hour laboratory sessions per week.*
- 2213. Active Spanish Usage. (2).**  
Optional companion course to Spanish 2212. Credit allowed only if student completes successfully Spanish 2212 in same semester. Stress on idiomatic usage in conversation and writing. PREREQUISITE: Spanish 2211 or the equivalent. COREQUISITE: Spanish 2212.  
*Two class periods and one half-hour laboratory session per week.*
- 3301. Advanced Conversation and Composition on Spanish Culture. (3). (321)**
- 3302. Advanced Conversation and Composition on Spanish American Culture. (3). (322)**
- 3333. Readings in Hispanic Culture and Civilization. (3).**  
A comprehensive study of Hispanic culture designed for non-majors. This course will not meet any part of the requirement for a major or minor in Spanish. PREREQUISITE: Spanish 2202 or the equivalent.
- 3334. Readings in Hispanic Literary Masterpieces. (3).**  
A thorough reading of certain masterpieces of Hispanic literature. This course is designed for non-majors and will not meet any part of the requirements for a major or minor in Spanish. PREREQUISITE: Spanish 2202 or the equivalent.
- 3411. Survey of Spanish Literature. (3). (311)**  
Formation of the Spanish language and literature, with readings of representative works to illustrate principal periods and genres from the beginnings to 1700.

3412. **Survey of Spanish Literature.** (3). (312)  
A continuation of Spanish 3411, covering Neoclassicism, Romanticism, *costumbrismo*, Realism, Naturalism, and the contemporary period.
3511. **Survey of Spanish American Literature.** (3). (341)  
A survey of Spanish American literature from the Colonial Period to the end of the period of Romanticism.
3512. **Survey of Spanish American Literature.** (3). (342)  
A survey of Spanish American literature from the beginnings of Modernism to the present.
4301. **Spanish Phonetics.** (3).  
Theory and practice of Spanish sounds; especially recommended for teachers of Spanish. PREREQUISITE: completion of third-year level of college Spanish or permission of the instructor.
4421. **The Golden Age.** (3). (415)  
A study of Spanish lyric poetry and drama up to 1700. PREREQUISITES: Spanish 3411 and 3412, or permission of the instructor.
4501. **Applied Spanish Linguistics.** (3).  
Application of modern linguistic theories to learning Spanish. PREREQUISITE: Spanish 3301.
4422. **The Golden Age.** (3). (416)  
A study of Spanish prose up to 1700. PREREQUISITES: Spanish 3411 and 3412, or permission of the instructor.
4431. **Contemporary Spanish Prose.** (3). (412)  
A study of Spanish prose from the Generation of 1898 to the present. PREREQUISITES: Spanish 3411 and 3412, or permission of the instructor.
4432. **Contemporary Spanish Poetry and Drama.** (3). (413)  
A study of Spanish poetry and drama from the Generation of 1898 to the present. PREREQUISITES: Spanish 3411 and 3412, or permission of the instructor.
4561. **Spanish American Short Story.** (3). (422)  
A critical analysis of Spanish American short stories and their reflections of predominant social and ethical problems.
4562. **Spanish American Novel.** (3). (423)  
A critical study of representative works by such novelists as Fernandez de Lizardi, Blest Gana, Isaacs, and Güiraldes.
4591. **Spanish American Drama, Poetry and Essay.** (3). (421)  
A critical study of the development of drama, poetry, and essay in Spanish America.

*Graduate courses in Spanish: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

## FRENCH

(See FOREIGN LANGUAGES)



# GEOGRAPHY

PROFESSOR PAUL HARDEMAN SISCO, *Chairman*  
*Room 109, Johnson Hall*

Requirements for the major and minor in geography are listed on page 155.

- 1101. Introduction to Earth Science I. (4). (111)**  
 An introductory study of earth-sun and earth-moon relations, the oceans and their movements, weather, and climate.  
*Three lecture, two laboratory hours per week.*
- 1102. Introduction to Earth Science II. (4). (112)**  
 An introductory study of maps as a basic tool in understanding earth phenomena, landforms, the structure and composition of rocks, soils, and their capabilities.  
*Three lecture, two laboratory hours per week.*
- 2301. A Survey of World Regions I. (3). (235)**  
 Regional geography of Europe, the Soviet Union, and the Middle East with emphasis on the people and their activities as related to the environment. PREREQUISITE: Sophomore standing.
- 2311. A Survey of World Regions II. (3). (236)**  
 Regional geography of the Orient, the Pacific world, Africa, Latin America, and Anglo-America, with emphasis on the people and their activities as related to the environment. PREREQUISITE: Geography 2301.
- 3201. Economic Geography: Major Basic Resources. (3). (121)**  
 Man's development and use of such major basic resources as land, water, forests, and minerals. PREREQUISITE: Junior standing.
- 3211. Economic Geography: Industrial and Commercial. (3). (122)**  
 An introductory study of manufacturing, trade, and transportation. PREREQUISITE: junior standing.
- 3301. North Africa and the Middle East. (3).**  
 A study in areal differentiation based on the analysis of co-varying phenomena, physical and non-physical, in a region inhabited by people who are predominantly Moslem. PREREQUISITES: junior standing and Geography 2301.
- 3302. Africa South of the Sahara. (3).**  
 An analysis of the resources and regional complexities with stress on the significance of the relationship between cultural and physical phenomena to economic and political development. PREREQUISITES: junior standing and Geography 2301.
- 3312. Anglo-America I. (3). (331)**  
 An analytical study of the cultural-physical complex in the area of the United States east of the Rockies. PREREQUISITES: junior standing and Geography 2311.
- 3313. Anglo-America II. (3). (332)**  
 An analytical study of the cultural-physical complex in the western United States, Canada, and Alaska. PREREQUISITES: junior standing and Geography 2311.

- 3314. Central America and the Caribbean. (3). (333)**  
A study of the regions and resources of Central America and the West Indies as they relate to present and potential economic development. PREREQUISITES: junior standing and Geography 2311.
- 3315. South America. (3). (334)**  
An analysis of the regional economies, resources, and trade in the continent, with stress upon the changing significance of the landscape as related to national and international problems. PREREQUISITES: junior standing and Geography 2311.
- 3401. Historical Geography of Europe. (3). (321)**  
An analysis of human occupancy in Europe during selected periods, with a study of significant relationships between the physical and cultural features. PREREQUISITES: six semester hours of geography and six semester hours of history.
- 3402. Historical Geography of the United States. (3). (322)**  
A study of the geography of selected areas of the United States for sequent periods of their occupancy by the white man. PREREQUISITES: six semester hours of Geography and six semester hours of history.
- 3411. Principles of Conservation. (3). (351)**  
Current problems and responsibilities relating to the conservation of soil, minerals, forests, water, wild life, and the natural beauty of the earth. PREREQUISITES: junior standing and a two-semester sequence of a natural science.
- 3501. Cartography. (3). (341)**  
An introductory course in (1) map projections, grids, scales, symbols, and (2) map drafting for geographical uses. Lectures and laboratory work. PREREQUISITE: junior standing.
- 3502. Map Intelligence. (3). (342)**  
An intensive investigation of charts, graphs, maps, and aerial photography as geographical tools. Lectures and laboratory work in the Johnson Hall Map Library, a depository of the United States Army Map Service for all maps and material it provides. PREREQUISITE: junior standing.
- 3511. Photo Interpretation. (3). (343)**  
A survey course dealing with the art and science of obtaining geographic information from landscape surveys by means of photography. PREREQUISITE: junior standing.
- 4111. Earth Science I. The Atmosphere. (3). (412)**  
An analytical study of the physical processes underlying the behavior and responses of the atmosphere and the application of this general body of knowledge to an understanding of the relationship of man to this important element of his environment. PREREQUISITES: junior standing and a two-semester sequence of a natural science.
- 4121. Earth Science II. The Earth. (3). (411)**  
An analytical study of land forms, their changes, and their uses to man. PREREQUISITES: junior standing and a two-semester sequence of a natural science.
- 4122. Earth Science III. The Soil. (3). (413)**  
An analytical study of soils to include their physical, chemical, and

biological qualities, and their classes, uses, and measures of conservation. PREREQUISITES: junior standing and a two-semester sequence of a natural science.

4131. **Earth Science IV. The Oceans.** (3). (414)  
An analytical study of the oceans to include their physical, chemical, and biological qualities; their movements, resources, climatic influences, and importance for transportation. PREREQUISITES: junior standing and a two-semester sequence of a natural science.
4304. **Western Europe.** (3). (431)  
A geographic analysis of the lands west of the Iron Curtain. PREREQUISITES: junior standing and Geography 2301.
4305. **The Soviet Realm.** (3). (432)  
A regional analysis of the Soviet Union and its satellites. PREREQUISITES: junior standing and Geography 2301.
4306. **The Far East.** (3). (433)  
A consideration of the significance of regional differences in Japan, China, and India, and a brief survey of the remaining areas. PREREQUISITES: junior standing and Geography 2311.
4314. **Geography of Mexico.** (3).  
A comprehensive and systematic survey of the geographic regions, resources, and potentialities of Mexico and their significance in the economic and political affairs of Latin America and the world. PREREQUISITE: junior standing and Geography 2311.
4315. **Geography of Brazil.** (3).  
A comprehensive and systematic survey of the geographic regions, resources, and potentialities of Brazil and their significance in the economic and political affairs of Latin America and the world. PREREQUISITE: junior standing and Geography 2311.
4316. **The South.** (3). (436)  
A specialized study of selected regions in the South with emphasis on changes and trends in the cultural-physical complex. PREREQUISITES: junior standing and Geography 2311.
4317. **Tennessee.** (3). (437)  
A comparison of the human-use, political, and physical regions of the state. PREREQUISITES: junior standing and Geography 2311.
4381. **Regional Planning.** (3).  
A study of regional planning organizations, the various levels of planning, the functions and aspects of plan implementation. PREREQUISITE: junior standing.
4421. **Geopolitics.** (3). (422)  
An analysis of the world's political regions, with primary emphasis placed on the varied factors affecting the political importance of the principal powers and power blocs. Individual student study into selected problems is an integral part of this course. PREREQUISITE: junior standing.
4431. **Urban Geography.** (3). (461)  
A study of the allocation of land for urban uses; the adjustments and adaptations to existing physical phenomena; the patterns, functions,

and forms of specific urban land areas; and some of the continuous problems of urban development and growth. PREREQUISITE: junior standing.

**4432. City Planning. (3). (462)**

The fundamental principles of urban planning, basic elements of a city plan, and the necessity of continuity in planning administration. PREREQUISITE: junior standing.

**4433. Urban Renewal. (3). (463)**

Changing urban land uses, first in areas which must improve or rebuild obsolete patterns, functions, and forms; and second in areas with acceptable uses, structures, and institutions which in the interest and welfare of all the people must have additional space for growth and expansion. PREREQUISITE: junior standing.

**4434. Urban Development. (3).**

A study of urban systems and forces that affect change, including public and private investments needed for urban development. PREREQUISITE: junior standing.

**4611. Regional Field Study. (6). (441-B)**

A comparative study of selected regions of the world, including library study of the regions to be traversed, a minimum of sixteen days of study in the regions, and oral and written reports. PREREQUISITE: permission of the instructor.

*Graduate courses in Geography: For course descriptions and further details of the graduate program, see The Bulletin of the Graduate School.*

## GEOLOGY

PROFESSOR ANTHONY R. CARIANI, *Chairman*

*Room 312, Engineering Building*

Requirements for the major and minor in geology are listed on page 192.

**1101. Physical Geology. (4).**

A study of the earth's internal composition and structure, the forces which establish the gross form of the earth's land masses and ocean basins, and the geologic processes of denudation which account for the diverse and complex detail of the earth's surface configuration.

*Three lecture, two laboratory hours per week.*

**1201. Historical Geology. (4).**

The earth's origin and geologic history as interpreted from the stratigraphic and paleontological records, emphasizing the succession of geologic and biogenetic events which have led to the present-day distribution of land and water, configuration of coastlines, topography of land surfaces and ocean basins, and form and distribution of life. PREREQUISITE: Geology 1101.

*Three lecture, two laboratory hours per week.*

**2311. Crystallography and Mineralogy. (3).**

Introduction to crystallography and crystal chemistry. Physio-chemical properties and identification of the important ore and rock forming

minerals. PREREQUISITES: Geology 1101 and 1201. PREREQUISITES or COREQUISITES: Chemistry 1111 and 1112.

*Two lecture, two laboratory hours per week.*

**2312. Determinative Mineralogy. (3).**

A continuation of Geology 2311, with emphasis on mineral identification. PREREQUISITE: Geology 2311.

*Two lecture, two laboratory hours per week.*

**2512. Structural Geology. (3).**

Rock structures; origin, criteria for recognition and solution of structural problems.

*Two lecture, two laboratory hours per week.*

**3211. Introduction to Paleontology. (4).**

The study of fossil invertebrates. PREREQUISITES: Geology 1101 and 1201.

*Three lecture, two laboratory hours per week.*

**3311. Lithology. (2).**

Study of megascopic characteristics of rocks, field classification and relationships of igneous, sedimentary, and metamorphic rocks. PREREQUISITES: Geology 2311 and 2312, or consent of instructor.

*One lecture, two laboratory hours per week.*

**3712. Sedimentation and Stratigraphy. (4).**

Principles of stratigraphy and sedimentation; interrelationships of structure, stratigraphy, and environments of deposition. PREREQUISITES: Geology 2512 or consent of instructor.

*Three lecture, two laboratory hours per week.*

**4121. Optical Crystallography. (4).**

The principles and methods of study of optical crystallography. The use of the polarizing microscope in the identification of minerals by the immersion method. PREREQUISITE: Geology 2311 and 2312.

*Two lecture, four laboratory hours per week.*

**4322. Microscopic Petrography. (4).**

Classification, description, and thin-section study of rocks by means of the petrographic microscope. PREREQUISITE: Geology 4121.

*Two lecture, four laboratory hours per week.*

**4332. Introduction to Geochemistry. (3).**

A study of the geological and chemical processes which govern or control the migration and distribution of the elements and atomic species of the earth in space and time. PREREQUISITES: Geology 2311 and 2312.

*Three lecture hours per week.*

**4352. Sedimentary Petrology. (4).**

Examination of sedimentary rocks in the field, in hand specimens, and through the microscope with the view of explaining sedimentary rock classification, the post-depositional changes that occur in sediments and the bearing on these factors on geology as a whole. PREREQUISITE: Geology 3712, 4121, or consent of instructor.

*Three lectures, two laboratory hours per week.*

**4411. Micropaleontology. (3).**

A study of microscopic fossils. Morphology, classification, evolution, and stratigraphic distribution of some of the more common groups.



Photography and laboratory techniques in preparing microfossils for study. PREREQUISITE: Geology 3211.

*Six laboratory hours per week.*

**4511. Economic Mineral Deposits. (3).**

Origin, occurrence, and composition of metallic and non-metallic mineral deposits. PREREQUISITES: Geology 2311, 2312, and 2512.

*Three lecture hours per week.*

**4601. Engineering Geology. (3).**

The application of principles and knowledge of geology to engineering practice, especially in highway construction, dam sites, foundations, water resources, and location of certain engineering materials. PREREQUISITE: consent of instructor.

*Three lectures per week.*

**4622. Geology Field Camp. (6-8).**

Mapping of the structure and lithology of a prescribed geologic area. To be offered during the summer. Course may be taken at a college field camp offered by other schools subject to approval of major adviser. PREREQUISITES: Geology 3311, 2513, and 3712.

**4632. Applied Geophysics. (4).**

A survey of geophysical methods which emphasizes seismic and electrical investigations employed in engineering practice. The use of resistivity and the seismograph in the investigation of subsurface materials. The location of sand, gravel, and subsurface water are discussed and will be supplemented by field measurements with these instruments.

*Two lecture, four laboratory hours per week.*

**4701. Spring Field Trip. (1-2).**

Conducted field trip to Ouachita-Arbuckle-Wichita Mountains of Oklahoma during spring vacation. About 30 hours of field work will follow 2-4 hours of lectures. Open to non-majors. PREREQUISITE: consent of instructor.

*Dates, hours, and credits to be arranged.*

**4702. Spring Field Trip. (1-2).**

Conducted field trip to Ouachitas, Ozark dome, and adjacent mineral districts during spring vacation. About 30 hours of field work will follow 2-4 hours of lectures. Open to non-majors. PREREQUISITE: consent of instructor.

*Dates, hours, and credits to be arranged.*

**4703. Spring Field Trip. (1-2).**

Conducted field trip to central and southern Appalachians during spring vacation. About 30 hours of field work will follow 2-4 hours of lectures. Open to non-majors. PREREQUISITE: consent of instructor.

*Dates, hours, and credits to be arranged.*

**4704. Spring Field Trip. (1-2).**

Conducted field trip to the Gulf Coastal Plain during spring vacation. About 30 hours of field work will follow 2-4 hours of lectures. Open to non-majors. PREREQUISITE: consent of instructor.

*Dates, hours, and credits to be arranged.*

**4705. Spring Field Trip. (1-2).**

Conducted field trip to the Upper Mississippi Valley and Lake Superior District during spring vacation. About 30 hours of field work will follow

2-4 hours of lectures. Open to non-majors. PREREQUISITE: consent of instructor.

*Dates, hours, and credits to be arranged.*

## GERMAN

(See FOREIGN LANGUAGES)

## GREEK

(See FOREIGN LANGUAGES)

# HEALTH, PHYSICAL EDUCATION, AND RECREATION

PROFESSOR RALPH L. HATLEY, *Chairman*  
*Room 211, Field House*

Majors and/or minors are offered in (1) health, (2) health and physical education, and (3) recreation. Requirements are listed on page 181.

### CORRECTIVE AND RECREATIONAL THERAPY PROGRAMS

The University, in cooperation with Kennedy Veterans Hospital, offers programs in corrective and recreational therapy designed to prepare the student to meet civil service requirements. Physical education majors may offer either of these programs in fulfillment of the second area of endorsement required for a degree in College of Education. For further information students should consult with the chairman of the Department of Health, Physical Education, and Recreation.

Letters following each subheading are prefixes used by The College of Education.

### HEALTH (HLTH)

#### 1102. Personal Health. (3). (101)

The physiological basis of correct living, including fundamental biological facts; the psychological aspects of human behavior as they affect the individual health conduct and mental hygiene; the agents of disease and modern scientific methods of controlling them.

#### 1202. Introduction to Community Health. (2).

A study of the health problems requiring community action. An introduction to the official and non-official health agencies whose programs are designed for the prevention of disease and disorders and the conservation and promotion of health. Activities in the areas of environmental health, sanitation, epidemiology, health education, and related areas are included.

#### 2102. Safety and First Aid. (3). (231)

This course is designed to assist students in developing an understanding of the basic principles of accident prevention as applicable to the home, school and community, and techniques of administering immediate and temporary care in the event of an injury or sudden illness.

#### 3102. Health Education in Schools. (3). (301)

An analysis of the health problems of school-age children in the home, school, and community, with emphasis on improving health behavior through sound health teaching; procedures and principles involved in coordinating health instruction with other areas of the curriculum; materials and resources for health teaching. PREREQUISITE: Education 2011, 2111, and 3121.

- 3202. Health Service in Schools. (3). (302)**  
Methods of organizing and implementing health measures in schools and of relating them to other community agencies; techniques for determining health status through screening processes; the detection of remedial defects and follow-up for correction; the promotion of health through environment and special health services; sanitation in the home, school and community as it affects the school child.
- 3306. Elementary School Health Education. (3). (303)**  
(For elementary education majors only.)  
The school health program involving health services, healthful school living, and health instruction is considered. Content and materials suitable for an elementary school health course are stressed.  
PREREQUISITES: Two of the following: Education 3241, 3261, 3271.
- 3402. Safety Education. (2). (321)**  
An orientation in the various methods, techniques and teaching devices in safety education and first aid courses with special emphasis placed on the home and leisure activities. Successful completion of this course qualifies one for the Red Cross first aid instruction certificate.  
PREREQUISITES: Health 2102 or ARC Advanced certificate.
- 3502. Prevention and Care of Athletic Injuries. (3). (345)**  
Practical and theoretical aspects of treatment of athletic injuries in an athletic training program; supplies, training table, therapeutic equipment, and techniques in conditioning and bandaging.
- 4302. Observation in Community Agencies. (3). (416)**  
An introduction to the purposes, objectives, functions, and programs of a variety of community health and welfare agencies, with opportunities to visit official and volunteer agencies. Application should be made at least 60 days before the student plans to enroll in the course.  
PREREQUISITE: permission of the chairman of the Department of Health, Physical Education, and Recreation.
- \*4502. Problems in Health Education. (1 to 3). (\*434)**  
Designed to afford opportunities for prospective or in-service school and other professional personnel to work individually or in groups on health education factors in the solution of practical problems. PREREQUISITE: permission of the instructor.
- 4602. Supervision and Administration in Health. (3). (450)**  
The functions, principles, and procedures of supervision and administration of health, with emphasis on the relationship and responsibilities of personnel in planning, promoting, improving, and evaluating the total health activities in the family-centered health services; legal and legislative aspects of health activities.
- 4702. Trends and Problems in Public Health. (3). (470)**  
A review of the historical development and current trends in professional nursing as a community service; the various needs and demands for medical care; the contribution of the professional personnel in providing for total health services and education.
- 4802. Group and Intergroup Hygiene. (3).**  
*New course; number formerly assigned to "Mental Hygiene," no longer offered.*  
Environmental sanitation and its role in the control and spread of disease.

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\*Credit may be earned in only one of the following courses: Health 4502, Physical Education 4303.

**4902. Health Statistics. (3).****(480)**

A study of the statistical method, including collection, analysis, and presentation of numerical data pertaining to health problems.

*Graduate Courses in Health: For details of the graduate program, see The Bulletin of The Graduate School.*

**PHYSICAL EDUCATION (PHED)**

*(For details of the physical education requirements for graduation, see page 125.)*

**1001. Orientation to Physical Activity. (1).****(100)**

Orientation to physical activity (for men); orientation and fundamental movements (for women); one semester required of all students (except majors and minors in health and physical education). Transfer students with at least one semester hour of physical education credit from a previous college need not take Physical Education 1001 as a prerequisite for physical education courses.

**1101. Orientation for Physical Education and Recreation Majors and Minors. (1).****(111)**

Fundamental movements, touch football, basketball, and speedball (for men); conditioning, volleyball, and basketball (for women). This course is required of and restricted to students majoring or minoring in physical education and/or recreation.

**1---. Selected Physical Activities. (1).**

Two or three semesters required of all students, the specific course number to be selected from the following list. **PREREQUISITE:** Physical Education 1001.

1101. (See description above)	(111)	1281. Modern Dance (advanced—men and women)	(244)
1111. Beginning Swimming (men and women)	(219 & 258)	1291. Archery and Bowling (women)	(245)
1121. Intermediate Swimming (men and women)	(259)	1301. Weightlifting (men)	(213)
1131. Survival Swimming (men and women)	(260)	1311. Archery, golf, and bowling (men and women)	(245)
1141. Swimming-Lifesaving (men and women)	(261)	1321. Tennis and recreational games (men and women)	(246)
1151. Synchronized Swimming (men and women)	(266)	1331. Outdoor Education Activities (men and women)	(270)
1161. Handball (men and women)	(220)	1341. Four Wall Racket Sports (men and women)	
1171. Beginning Gymnastics (men and women)	(221 & 264)	1351. Square and Round Dance (men and women)	
1181. Combatives (men)	(212)	1401. Bowling (men and women)	(214)
1191. Fencing (men and women)	(262)	1501. Tennis (men and women)	(215 & 256)
1201. Adapted Physical Education (men and women)	(211 & 251)	1511. Advanced Tennis (men and women)	
1211. Soccer, Speedball, and Volleyball (women)	(252)	1601. Golf (men and women)	(216 & 257)
1221. Fieldsports, Softball, and Track (women)	(253)	1611. Advanced Golf (men and women)	
1231. Elementary Swimming.		1701. Volleyball and Softball (men)	(217)
1241. Rhythms for Elementary School (for elementary education majors)	(240)	1801. Badminton (men and women)	(218 & 255)
1251. Folk and Social Dance (men and women)	(241)	1821. Riflery	
1261. Tap Dance (men and women)	(242)	1901. Advanced Badminton (men and women)	(265)
1271. Modern Dance (men and women)	(243)		

- 2103. Fundamentals and Techniques of Football. (2). (281)**  
Fundamentals of football coaching with special emphasis on blocking, tackling, passing, punting, catching; principles of line and backfield work, playing the various positions; formation of plays, generalship, signal systems, and scouting; coaching problems; study of the rules.
- 2203. Fundamentals and Techniques of Basketball. (2). (282)**  
The theory and practice of basketball coaching, history of the game, and study of the rules; offensive and defensive systems; drills for the development of fundamental skills; training and conditioning of basketball squads.
- 2303. Fundamentals and Techniques of Track and Field. (2). (283)**  
The accepted forms of starting, hurdling, distance running, pole vaulting, discus and javelin throwing, and sprinting; physical conditions affecting speed, endurance, and fatigue; and selection and preparation of contestants for track and field events; managing and officiating games and meets; study of rules.
- 2403. Fundamentals and Techniques of Baseball and Softball. (2). (284)**  
The theory and practice of baseball coaching, with attention given to the coaching of the individual in base running, fielding, batting, and pitching; detailed study of each position; offensive and defensive team play; officiating; scoring; study of rules.
- 2503. Coaching Methods in Swimming. (2).**  
Coaching techniques and methods stressed. A course designed for those planning to coach swimming teams. PREREQUISITE: Either life-saving or W.S.I. qualifications.
- 2603. Sports Officiating. (3).**  
A study of the rules, interpretations, and mechanics of officiating in football, basketball, baseball, etc.
- 2703. Water Safety Instructor. (2).**  
Analysis, practice, and teaching of swimming and life saving skills and general water safety practice. PREREQUISITE: Physical Education 1141.
- 3103. Materials and Methods in Team Sports for Women. (3). (327)**  
Fundamentals of teaching and coaching team sports, including history, rules, skills, and teaching progressions; laboratory experience in intramural and activity classes. PREREQUISITES: Physical Education 1101 and 1221.  
*Two lecture, two laboratory hours per week.*
- 3203. Techniques of Individual Sports. (2). (328)**  
Study of teaching methods, instruction and participation in individual recreational sports, tumbling, mass gymnastics, and conditioning activities; means of providing facilities for these activities. PREREQUISITES: Physical Education 1291 and 1321.  
*Two lecture, two laboratory hours per week.*
- 3303. Adapted Physical Education. (2). (342)**  
A theory course including lectures, demonstrations, and problems of the mechanics of physical deformities and their causes; abnormalities of the spine, feet, and other postural and functional conditions; and methods of class organization.  
*Two lecture hours per week, plus laboratory periods to be arranged.*



- 3403. Kinesiology. (2). (343)**  
Analysis of bodily movements in terms of the muscular forces operating on the bones. PREREQUISITES: Biology 1631 and 1632.
- 3503. Rhythms and Dance. (2). (351)**  
Basic theory, participation, techniques, materials, and teaching methods in rhythmic activities from grades 7 through 12. PREREQUISITE: Physical Education 1251.  
*Laboratory periods to be arranged.*
- 3603. Methods and Supervision of Physical Education in the Elementary Schools. (2). (371)**  
Theory of and activities for physical education in grades 1 through 9, including teaching methods, program planning, and participation in stunts, mass gymnastics, relays, informal games, team games, individual and dual sports, and mimetics; practical experience is gained through observing and directing play activities for children in the University Campus School. (For majors and minors in physical education and majors in recreation).  
*Laboratory periods to be arranged.*
- 3703. Physiology of Exercise. (3). (381)**  
Primarily designed to establish a sound scientific basis of physiological principles on the various systems and organs of the body during muscular activity. Special emphasis is given in the principles of motor performance and training. PREREQUISITES: Biology 1631 and 1632.  
*Three lecture hours per week.*
- 3803. Principles and Methods of Physical Education. (3). (391)**  
Physical education in retrospect. Major emphasis on origins and nature of modern physical education as a developmental experience and medium of education. A second major emphasis is the methodology of selection, adaptation, and teaching of appropriate activities which contribute to organic growth, personal resources, and growth in social relationships.
- 3806. Physical Education for the Elementary School. (3). (361)**  
Materials and methods for physical education in grades 1 through 6, including philosophy, program planning, and practical experience gained through observing and directing play activities for children in the University Campus School. (For elementary education majors only.) PREREQUISITE: Physical Education 1241.  
*Laboratory periods to be arranged.*
- 4103. Workshop in Physical Education. (3-6). (413)**  
Through group study, demonstration, directed observation, discussion, and laboratory experiences, participants will develop programs for each grade level K-12.
- 4204. Tests and Measurements in Health and Physical Education. (3). (432)**  
A study of the various tests in the field of health and physical education, including uses and interpretation of elementary statistical techniques.

**\*4303. Problems in Physical Education. (1 to 3). (\*434)**

Designed to afford opportunity for prospective or in-service school and other professional personnel to work individually or in groups on physical education factors in the solution of practical problems. **PRE-REQUISITE:** permission of the instructor.

**4403. Supervised Clinical Training in Corrective Therapy. (6). (444)**  
(formerly Clinical Practice)

Supervised clinical practice in the Department of Physical Medicine and Rehabilitation Service at the Kennedy Veterans Hospital; instruction will be given in the conditioning, ambulation, and self-care of patients with neurological, pulmonary, geriatric, neuropsychiatric, speech, spinal cord, cardiac, and other types of disabilities.

**4503. Organization and Administration of Health and Physical Education. (3). (482)**

A study of administrative problems of health and physical education, including curriculum, facilities, buying and caring for equipment, general class organization, and organization of an intramural program.

**4603. Intramural Sports and Activities for Schools and Colleges. (3).**

History, present status, and the objectives of the intramural movement; organization and affiliation with other departments; units of competition from elementary to college level; program of activities; group, team, and individual schedule-making and scoring plans; rules and regulations, awards, and special administrative problems. **PRE-REQUISITE:** Permission of instructor.

*Graduate Courses in Physical Education: For details of the graduate program, see The Bulletin of The Graduate School.*

**RECREATION (RECR)****2205. Youth Service Organization. (2).**

An introduction to agencies serving the leisure time needs of children and adults. Special emphasis on YMCA, YWCA, CYO, JCC, BSA, and GSA. Objectives, organization, program, and membership of principal national youth agencies.

**3105. Philosophy and Principles of Recreation. (2).**

A careful study of work, leisure, play, and recreation with special attention being given to sound principles of recreation. **PREREQUISITE:** Permission of instructor.

**3205. Park and Recreation Facilities. (2).**

A study of planning, development, and maintenance of parks and recreation facilities. Includes inspection, comprehensive recreation surveys, and planning a layout. **PREREQUISITE:** Permission of instructor.

**3505. Camp Administration. (2).**

A study of the organization and administration of various types of camps and camping programs with particular emphasis on program planning, selection and training of staff.

**3605. Outdoor Recreation. (2).**

The organization and administration of programs and activities in large

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\*Credit may be earned in only one of the following courses: Physical Education 4303, Health 4502.

park areas and forests. Outings, campfire programs, picnics, hiking, outdoor cookery, trailing, climbing, class and field activity.

**3705. Outdoor Education. (2).**

The philosophy, modern trends, administration, program content, and methods of leadership in outdoor education activities. Opportunities for field trips and practice in leadership skills.

**3905. Introduction To Recreation. (3).**

An understanding of the nature of the recreation experience and its importance to the individual; the influence of leisure on society and the philosophies of recreation. A study of the history and development of the recreation movement.

**4105. Recreational Leadership. (3). (426)**

Development of skills and techniques necessary for successful leadership in city, county and school recreation programs.

**4205. Supervised Clinical Training in Recreational Therapy. (6).**

Supervised clinical training in the Recreational Therapy Department of the Physical Medicine and Rehabilitation Service at the Memphis V. A. Hospital. Instruction will be given in arts and crafts, radio, television programming, social activities, adapted sports, music, allied ward and clinic activities for patients with varied illnesses and disabilities.

**4305. Field Problems in Recreation. (1-6).**

This course is designed to offer opportunities to study selected problems in the areas of recreation through individual and group field experience. **PREREQUISITE:** Permission of instructor.

**4405. Organization and Administration of Recreation. (3).**

An understanding of community organization, its philosophy, foundation and principles. An understanding of selected administrative practices that relate to successful recreational organization and administration.

**4505. Recreation Surveys. (3).**

Observation of different types of recreational programs in action under professional leadership and supervision. Written analysis of programs and facilities in connection with course work.

**4605. Practicum in Recreation. (6).**

Field experience providing an opportunity for practical application of classroom theory. At least 280 clock hours in professional field work in selected recreational settings according to student's particular area of emphasis.

*Graduate Courses in Recreation: For details of the graduate program, see The Bulletin of the Graduate School.*

## HISTORY

PROFESSOR AARON M. BOOM, *Chairman*  
Room 342, Administration Building

Requirements for the major and minor in history are listed on page 156. All candidates for graduation at Memphis State University are required

to complete History 2601 and 2602; these courses are not open to students with fewer than 25 semester hours credit.

*History Honors Program.* History majors who have completed at least 75 hours of course work with a minimum grade point average of 3.0 (in both general course work and the field of history) may apply for admission to the honors program in history. Enrollment is limited, and final selection of participants will be made by a faculty committee of the Department of History. The program involves special tutorial courses, a senior-year honors paper, and a comprehensive examination over the areas covered in the tutorials. Those who successfully complete the program and the regular B.A. requirements will be awarded the degree of Bachelor of Arts with Honors in History. A detailed description of the program, together with application forms for admission, may be obtained in the office of the Chairman, Department of History.

- 1301. The Development of World Civilization I. (3). (111)**  
Especially recommended for freshmen, this course traces the forms of civilization from their ancient beginnings through the seventeenth century.
- 1302. The Development of World Civilization II. (3). (112)**  
Especially recommended for freshmen, this course traces the forms of civilization from the beginning of the eighteenth century to the present.
- 2601. The United States to 1865. (3). (221)**  
A survey of the United States from discovery to the close of the Civil War. PREREQUISITE: sophomore standing.
- 2602. The United States since 1865. (3). (222)**  
A survey of the United States from the Civil War to the present. PREREQUISITE: sophomore standing.
- 3121. History of England before 1660. (3). (301)**  
A survey of the development and growth of England into a nation, with attention given to constitutional progress and the achievements of the Tudor and Stuart periods. PREREQUISITE: junior standing and History 1301.
- 3122. History of England since 1660. (3). (302)**  
A survey of the development of England's democratic government, considering economic, social, intellectual, diplomatic, and imperial affairs. PREREQUISITE: junior standing and History 1301 and 1302.
- 3200. History of Spain. (3). (371)**  
A survey of Spanish institutions, culture, and politics from ancient times to the present. PREREQUISITE: junior standing.
- 3211. Colonial Latin America. (3). (315)**  
A survey of political, economic, social and cultural development in Latin America from the pre-conquest era to 1808. PREREQUISITE: junior standing.
- 3212. The Latin American Nations. (3). (316)**  
A survey of the major political, economic, and social trends in Latin America since 1808. Emphasis is placed on Argentina, Brazil, Chile, and Mexico. PREREQUISITE: junior standing.

3231. **History of the Spanish Borderlands.** (3).  
A study of northern Mexico and areas of the southern United States originally colonized by Spain, from the Spanish discovery to the Treaty of Guadalupe Hidalgo. PREREQUISITE: junior standing.
3291. **The Far East in Modern Times.** (3).  
A survey of the Far East during the nineteenth and twentieth centuries. PREREQUISITE: junior standing.
3321. **History of Ancient Civilization I.** (3). (311)  
A study of the Ancient Near East and Greece through the time of Alexander the Great. PREREQUISITE: History 1301.
3322. **History of Ancient Civilization II.** (3). (312)  
A study of the Hellenistic World and of the rise and fall of the Roman Empire. PREREQUISITE: History 1301.
3371. **History of the Byzantine Empire.** (3).  
A history of the Byzantine or East Roman Empire from 330 to 1453 and its influence on the Slavic, Turkic, and Islamic peoples. PREREQUISITE: junior standing and History 1301.
3801. **American Diplomatic History to 1889.** (3). (331)  
A study of American diplomacy to 1889. PREREQUISITE: junior standing and History 2601 and 2602.
3802. **American Diplomatic History since 1889.** (3). (332)  
A study of American diplomacy since 1889. PREREQUISITE: junior standing and History 2601 and 2602.
3821. **Economic History of the United States to 1865.** (3). (341)  
A study of American economic development to 1865. PREREQUISITE: junior standing and History 2601.
3822. **Economic History of the United States since 1865.** (3). (342)  
A study of American economic development since 1865. PREREQUISITE: junior standing and History 2602.
3841. **Constitutional History of the United States to 1865.** (3). (343)  
A study of the formative period and the early period of operations of the United States Constitution. PREREQUISITE: junior standing and History 2601.
3842. **Constitutional History of the United States since 1865.** (3). (344)  
A study of the operation of the United States Constitution since 1865. PREREQUISITE: junior standing and History 2602.
3861. **Social and Intellectual History of the United States to 1865.** (3). (361)  
A study of the main social and intellectual trends in the United States since 1865. PREREQUISITE: junior standing and History 2601.
3862. **Social and Intellectual History of the United States since 1865.** (3). (362)  
A study of the main social and intellectual trends in the United States since 1865. PREREQUISITE: junior standing and History 2602.



- 3871. United States Urban History. (3).**  
A study of the development of American cities, including formation of local social, economic, and political institutions, and the impact of urbanization on the United States. PREREQUISITE: junior standing.
- 3900. History of Tennessee. (3). (351)**  
A study of the political, economic, and social development of Tennessee from earliest times.
- 3920. The Old South. (3). (352)**  
A study of southern institutions prior to the outbreak of the Civil War. PREREQUISITE: junior standing and History 2601.
- 3930. The New South. (3). (353)**  
A study of the South from the Civil War to the present. PREREQUISITE: junior standing and History 2602.
- 3940. The West. (3). (354)**  
A study of the significance of the frontier in the development of the United States from the Revolutionary period to 1890. PREREQUISITE: junior standing and History 2601 and 2602.
- 4003. Historiography and the Philosophies of History. (3).**  
A survey of the important ideas which men in Western Civilization have entertained about the nature and meaning of history. Approximately one-fourth of the course will be devoted to a common body of readings and to class discussion of the basic problems involved; the remainder will be conducted on the basis of individual tutorials. PREREQUISITE: admission to the honors program.
- 4103. Honors Course in non-United States History. (3).**  
An investigation of selected aspects of the history of countries other than the United States, to be conducted largely on the basis of individual tutorials. PREREQUISITE: admission to the honors program.
- 4125. England in the Age of Reform, 1760-1840. (3).**  
Readings and discussion on selected topics such as the movements for political and economic reforms, the Industrial Revolution, romanticism, and society of Regency England. PREREQUISITE: History 1302 and senior standing, or permission of instructor.
- 4126. Victorian England, 1840-1900. (3).**  
Readings and discussion on selected topics such as the development of English liberal thought, Victorian society and values, and imperialism. PREREQUISITE: History 1302 and senior standing, or permission of instructor.
- 4160. History of Russia before 1801. (3). (402)**  
A survey of Russia from early times to the beginning of the reign of Alexander I. PREREQUISITE: junior standing.
- 4161. History of Russia from 1801 to 1917. (3).**  
A survey of Russia from 1801 through the Revolution of 1917. PREREQUISITE: junior standing.
- 4162. History of Russia, 1917 to present. (3).**  
A survey of Russia from 1917 to the present. PREREQUISITE: junior standing.

- 4240. History of Mexico. (3). (471)**  
A survey of the political, economic, social, and cultural development of Mexico from ancient times to the present. PREREQUISITE: junior standing.
- 4250. History of Brazil. (3). (472)**  
A survey of the political, economic, social, and cultural development of Brazil from early times to the present. PREREQUISITE: junior standing and History 3211.
- 4281. Africa South of the Sahara. (3).**  
A survey with major emphasis on the nineteenth and twentieth centuries. The age of imperialism and the impact of the West on Africa; the colonial policies of the European powers; the rise of the nationalist movements; the problems of newly independent nations; the role of African countries in world affairs. PREREQUISITE: junior standing.
- 4282. The History of North Africa. (3).**  
A survey with major emphasis on the nineteenth and twentieth centuries. The extension of European influence and control; the rise of nationalist movements; the role of these areas in world affairs. PREREQUISITE: junior standing.
- 4292. History of Modern China, 1800 to the present. (3).**  
A study of China since 1800. PREREQUISITE: junior standing.
- 4294. History of Modern Japan, 1800 to the present. (3).**  
A study of Japan since 1800. PREREQUISITE: junior standing.
- 4296. Nationalism and Communism in the Far East. (3).**  
A study of the roles played by nationalism and communism within the historical context of transitional societies in the Far East. PREREQUISITE: junior standing.
- 4370. The Medieval World. (3). (451)**  
A study of the history of institutional forms beginning with the decline of the Roman Empire and ending with the beginnings of Renaissance life. PREREQUISITE: junior standing and History 1301 and 1302.
- 4380. The Renaissance World. (3). (452)**  
A study of the achievements and forces, political and economic, social and cultural, creative and intellectual, which made up the foundation of modern European civilization. PREREQUISITE: junior standing and History 1301.
- 4390. Europe in the Age of the Reformation. (3).**  
A consideration of the religious struggles, the social and intellectual milieu in the sixteenth and early seventeenth centuries. PREREQUISITE: junior standing.
- 4401. Europe in the Age of the Baroque. (3).**  
A study of the political crises, the development of monarchical absolutism, the rise of modern science, and the cultural synthesis in the seventeenth century. *NOTE: Students who have received credit for History 4400 will not be allowed credit for History 4401.* PREREQUISITE: junior standing.

**4402. The Age of the Enlightenment. (3).**

A study of intellectual, cultural, social, and political developments in eighteenth-century Europe. *NOTE: Students who have received credit for History 4400 will not be allowed credit for History 4402.* PREREQUISITE: junior standing.

**4440. The Era of the French Revolution. (3). (411)**

A study of the Enlightenment, the French Revolution, and the Napoleonic era. PREREQUISITE: junior standing.

**4451. Europe, 1815-1870. (3).**

A study of Europe during the period 1815-1870. *NOTE: Students who have received credit for History 4450 will not be allowed credit for History 4451.* PREREQUISITE: junior standing.

**4452. Europe, 1870-1914. (3).**

A study of Europe during the period 1870-1914. *NOTE: Students who have received credit for History 4450 will not be allowed credit for History 4452.* PREREQUISITE: junior standing.

**4461. Europe, 1914-1939. (3).**

A study of Europe during the period 1914-1939. *NOTE: Students who have received credit for History 4460 will not be allowed credit for History 4461.* PREREQUISITE: junior standing.

**4462. Europe, 1939 to present. (3).**

A study of Europe since 1939. *NOTE: Students who have received credit for History 4460 will not be allowed credit for History 4462.* PREREQUISITE: junior standing.

**4501. Intellectual History of Europe I. (3).**

Topics in the history of European thought and culture from the thirteenth through the seventeenth century. PREREQUISITE: senior standing and History 1301; or junior standing, History 1301, and consent of the instructor.

**4502. Intellectual History of Europe II. (3).**

Topics in the history of European thought and culture from the eighteenth century to the present. PREREQUISITE: senior standing and History 1302; or junior standing, History 1302, and consent of the instructor.

**4603. Honors Course in United States History. (3).**

An investigation of selected aspects of the history of the United States, to be conducted largely on the basis of individual tutorials. PREREQUISITE: admission to the honors program.

**4620. Colonial America, 1607-1763. (3). (421)**

A study primarily of the political development and institutions of the English Colonies in America before 1763, with some attention given to Spanish, French, and Dutch colonization. PREREQUISITE: junior standing and History 2601.

**4630. Era of the American Revolution, 1763-1790. (3). (422)**

A study of the origins and conduct of the American Revolution, the United States under the Articles of Confederation, and the writing and

ratification of the Constitution. PREREQUISITE: junior standing and History 2601.

**4641. The Early American Republic, 1790-1825. (3).**

A study of American history from unification until 1825. *NOTE: Students who have received credit for history 4640 will not be allowed credit for History 4641.* PREREQUISITE: junior standing and History 2601.

**4642. The Jacksonian Period, 1825-1850. (3).**

A study of American history from 1825 to 1850. *NOTE: Students who have received credit for History 4640 will not be allowed credit for History 4642.* PREREQUISITE: junior standing and History 2601.

**4660. Civil War, 1850-1865. (3). (424)**

A study of division and conflict. PREREQUISITE: junior standing and History 2601.

**4670. Reconstruction, 1865-1877. (3).**

A study of national and sectional issues following the Civil War. PREREQUISITE: junior standing and History 2601 and 2602.

**4680. Emergence of Modern America, 1877-1914. (3). (425)**

A study of the United States from the end of Reconstruction to the outbreak of World War I. PREREQUISITE: junior standing and History 2601 and 2602.

**4700. Recent American History, 1914-present. (3). (426)**

A study of the United States from World War I to the present. PREREQUISITE: junior standing and History 2601 and 2602.

**4881. American Negro History. (3).**

A survey of the role of the Negro in America from Jamestown to the present. PREREQUISITE: junior standing.

**4941. History of the American Indian. (3).**

A study of the role of the Indian in American history. PREREQUISITE: junior standing and History 2601 and 2602.

*Graduate Courses in History: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

## HOME ECONOMICS

PROFESSOR MARQUITA IRLAND, *Chairman*  
Room 304, Manning Hall

Requirements for the major and minor in home economics are listed on page 182.

A co-operative relationship exists between Memphis State University and the Merrill-Palmer Institute of Detroit Michigan, whereby a second-semester junior or first-semester senior majoring in Home Economics-Child Development may enroll for one semester of study at Merrill-Palmer with the semester hours earned being transferred toward graduation at Memphis State.

The prefix used by The College of Education for courses in Home Economics is HMEC.

## CHILD DEVELOPMENT AND FAMILY RELATIONSHIPS

- 1100. Home Economics as a Profession. (1).**  
The scope of Home Economics; educational preparation, professional orientation, and research pertinent to the field.
- 1101. Personal Development and Human Relations. (3). (171)**  
Individual and group adjustment, influences contributing to successful marriage and family life.
- 2101. Child Development. (3). (471)**  
A study of the physical, mental, social, and emotional development of the child from birth to six years; nursery school observation. **PREREQUISITE:** Home Economics 1101.
- 3101. Nursery School Curriculum. (3).**  
Application of principles of child development to program planning for preschool children; selection of appropriate music, science, literature, and creative activities for young children. A study of the teacher's responsibilities in the guidance of children, in cooperation with parents, and as an administrator. **PREREQUISITE:** Home Economics 2101.
- 4100. Senior Seminar in Home Economics. (1).**  
The scope and direction of current research and trends in Home Economics; discussion of the roles of modern woman and an understanding of the professional ethics required of a home economist. **PREREQUISITE:** Senior Standing.
- 4201. Preparation for Marriage. (3).**  
Courtship, marriage, and achievement of satisfaction in family life.
- 4301. Nursery School Practicum. (3). (473)**  
Participation in and direction of various nursery school activities. **PREREQUISITE:** Home Economics 2101.  
*One conference, five laboratory hours per week.*
- 4401. Nursery School Practicum. (3). (474)**  
For the student who has had or is taking Home Economics 4301 and desires additional experience.

## FOODS, NUTRITION AND INSTITUTIONAL MANAGEMENT

- 2102. Food Selection and Preparation. (3). (242)**  
Principles underlying the selection and preparation of foods with an introduction to the planning and serving of meals. Open to freshmen.  
*One lecture, four laboratory hours per week.*
- 2202. Elementary Nutrition. (3). (241)**  
Nutritive value of food, factors influencing body food requirement and health. Open to freshmen.
- 3302. Meal Preparation and Table Service. (3). (341)**  
Nutrition fundamentals in individual and family dietaries, meal planning, marketing and table service for various occasions. **PREREQUISITE:** Home Economics 2102.  
*One lecture, four laboratory hours per week.*



- 3402. Advanced Nutrition. (2). (342)**  
Fundamental principles of nutrition and their application in selection and planning of adequate diets for individuals and families. **PREREQUISITE:** Home Economics 2202.  
*One lecture, two laboratory hours per week.*
- 3502. Quantity Cookery. (3). (351)**  
Practical problems in preparing and serving foods for large groups. Use of standardized recipes, calculation of food costs, and use of institution equipment. **PREREQUISITE:** Home Economics 2202. (Enrollment must parallel that in 3602).
- 3602. Institutional Management and Equipment. (3). (352)**  
Observation and practice in handling problems of organization and management of quantity food service. (Enrollment must parallel that in 3502).
- 3702. Catering. (3).**  
Special food preparation and service for parties, dinners, and teas. Historical background of sectional foods in the United States with laboratory preparation. **PREREQUISITES:** Home Economics 3502 and 3602.  
*Six lecture and laboratory hours per week.*
- 3802. Food Production (Practicum). (3).**  
Personnel management, cost control, and quality control in specific organizations. Experience in approved food services. **PREREQUISITES:** Home Economics 3502 and 3602.  
*One lecture, four laboratory hours per week.*
- 3902. Advanced Food Production (Practicum). (3).**  
Special problems in quantity food production, organization, and management of institutional food service. **PREREQUISITE:** Home Economics 3802.  
*One lecture, four laboratory hours per week.*
- 4102. Diet Therapy. (2).**  
Dietary problems applicable to the prevention and treatment of disease in which therapeutic diets are of major importance. **PREREQUISITE:** Home Economics 2202.  
*One lecture, two laboratory hours per week.*

## HOME MANAGEMENT

- 4103. Family Economics. (3). (482)**  
Management of family resources as they relate to satisfying home and family life. Includes problems in consumer goods and services.
- 4203. Housing and Equipment. (3).**  
A study of housing as it relates to conditions of family living. Principles underlying the construction, use, and care of household equipment.  
*Two lecture, two laboratory hours per week.*
- 4503. Home Management Laboratory. (3).**  
Practical application of the theories of decision-making and group dynamics involved in the management of the resources of a home. **PREREQUISITE:** Home Economics 4103.

## RELATED ARTS

1104. **Art in Everyday Life.** (3). (181)  
A study of the elements of art and the principles of design as they relate to the practical aesthetics of living.
4104. **Home Furnishing.** (3). (481)  
Principles of design and color theory applied to the selection and arrangement of the house and its furnishings. PREREQUISITE: Home Economics 1104.

## TEXTILES AND CLOTHING

1105. **Clothing Selection and Construction.** (3). (111)  
Standards in selecting and purchasing; construction of cotton garments to meet individual needs.  
*One lecture, four laboratory hours per week.*
2205. **Clothing Construction.** (3). (211)  
Fundamental principles of clothing construction, fitting and finishing garments to develop techniques in handling wool, silk, and synthetic fabrics. PREREQUISITE: Home Economics 1105.  
*One lecture, four laboratory hours per week.*
3305. **Textiles.** (3). (312)  
A study of textile fibers used for clothing and house furnishing.  
*Two lecture, two laboratory hours per week.*
3405. **Consumer Problems in Clothing.** (3). (313)  
A course in clothing selection and buying for men and women with emphasis on individual needs and economic problems involved.
3505. **Tailoring.** (3).  
Selection and construction of tailored wool garments, using various tailoring techniques. PREREQUISITES: Home Economics 1105 and 2205.
3605. **Draping Design.** (3).  
Dress design and construction developed through the media of draping techniques. PREREQUISITES: Home Economics 1105 and 2205.
3705. **Fashion Merchandising.** (3).  
An analysis of the fashion buying function in the retail store involving an understanding of the function of fashion in today's world, the fashion industry, and careers in fashion. PREREQUISITE: Marketing 3320.
3805. **Principles of Fashion Design.** (3).  
A study of the forces influencing contemporary fashion, and the practical application of techniques of clothing design. PREREQUISITE: Home Economics 3605.  
*One lecture, four laboratory hours per week.*
4705. **Fashion Marketing Practicum.** (3).  
Ten hours per week of supervised work experience in fashion merchandising in a local department store. PREREQUISITE: Home Economics 3705.

# ITALIAN

(See FOREIGN LANGUAGES)

## JOURNALISM

PROFESSOR HERBERT LEE WILLIAMS, *Chairman*  
*Room 164, Administration Building*

Requirements for the major and minor in journalism are listed on page 156.

**1011. Survey of Mass Communications. (3). (111)**

Social background, scope, functions, and organization of modern communication media, with attention given to newspapers, magazines, motion pictures, radio, television, books, and comics.

**1012. Introduction to Modern Journalism. (3). (112)**

A study of the development of current techniques of writing for publication, with emphasis on the American press.

*Note: All journalism students must have typing proficiency before admission to courses numbered 2000 and above.*

**2111. Elementary News Writing. (3). (211)**

A study of news story structure and the factors that determine the value of news, with consideration given to both the theoretical and practical aspects of news gathering and reporting; lecture and laboratory sessions.

**2112. Reporting. (3). (212)**

Gathering and writing news of the University community, with assignments arranged on *The Statesman* or suburban newspapers, and with the University Public Information Office. PREREQUISITE: Journalism 2111.

**2211. Typography. (3). (200)**

A lecture-laboratory study of the development of type and the processes of composition, engraving, stereotyping, and printing. Students are provided opportunities to practice the effective use of type and illustration in mass communication.

**2300. Advertising Procedure. (3).**

An exploration of the creative functions of advertising with emphasis on the role of the media.

**3011. Picture Editing. (3). (340)**

(formerly Photojournalism)

Selection and arrangement of illustrative material for newspapers and magazines; analysis, use and influence of the news picture; techniques of the picture story; and the role of the picture magazine in the field of communication.

**3111. Press Photography. (3). (325)**

Taking pictures with the news camera, developing films, making enlargements, cropping and scaling for publication. Students may bring their own cameras. Open to non-majors with permission of the instructor.

3112. **Editing I. (3).** (312)  
Practices in headline writing, editing, and newspaper makeup and study of contemporary editing problems.
3113. **Editing II. (3).** (313)  
Continuation of Editing I with emphasis on practical application. Students are charged with the responsibility for the production of the *Memphis Statesman*.
3114. **Feature and Article Writing. (3).** (332)  
Techniques involved in writing the feature story; study of the magazine market and the specialized requirements of periodicals to which stories are submitted; students will write and submit articles for publication in magazines and newspapers and for acceptance by syndicates.
3115. **Interpretative Reporting. (3).** (322)  
Reporting of the significantly important news with attention to analysis, interpretation, and investigation. PREREQUISITES: Journalism 2111, 2112, and junior or senior standing.
3116. **The Magazine. (3).** (380)  
Historical backgrounds, contents, purposes, and readership of general magazines, business and trade papers, and specialized journals.
3117. **Magazine Editing and Production I. (3).**  
Editing and production problems of magazines with emphasis on business, industrial, and home periodicals; headline and title writing, pictorial copy layout, staff organization, and production processes. PREREQUISITE: Journalism 3116, or permission of the instructor.
3118. **Magazine Editing and Production II. (3).**  
Internships in editorial offices of approved magazines published in Memphis to offer exposure to the duties, procedures, and skills demanded in editing successful company and business magazines. PREREQUISITE: Journalism 3117.
3210. **Advertising Layout. (3).**  
Basic technique in laying out the printed advertisement; introduction to the use of advertising mat service in layout. Non-majors by permission of department chairman only.
3221. **Advertising Copy Writing. (3).** (314)  
The principles of advertising psychology studied in relation to the proved techniques for writing effective copy; approximately half of the course is devoted to practice in writing copy and in preparing rough layouts.
3222. **Advertising Sales. (3).** (315)  
Practical experience in the preparation and selling of completed advertisements; the student will service his own clients throughout the semester, using *The Tiger Rag* as a space medium. PREREQUISITE: Journalism 3221.
3223. **Advertising Production. (3).** (300)  
Principles of typography for advertising composition and display; layout, copyfitting, and type selection in laboratory. PREREQUISITE: Journalism 2211.

- 3331. Radio and Television News Writing and Editing. (3).**  
The processing of news for radio and television with attention to present-day style used by the electronic media.
- 3332. Trends in Broadcast Communication. (3).**  
A survey in the history of radio and television, principles of transmission and reception of signals, governmental and self-imposed regulations, and the responsibility of the broadcaster; intended to develop an awareness of the social implications of radio and television. Guest lecturers, class discussion, and case histories relating to the current problems and policies in broadcasting.
- 3333. Radio and Television Reporting of Special Events. (3).**  
Preparation and presentation of special programs such as news, sports, interviews, documentaries, etc.
- 3340. Cinematography. (3).**  
Introduction to fundamentals of 16mm motion picture photography, with emphasis on shooting news film for local television stations.
- 4001. Law of the Press, Radio, and Television. (3). (400)**  
Origin and development of the legal principles affecting freedom of expression, and provisions of the laws of libel, slander, copyright, and other statutes limiting communication in the fields of publishing and broadcasting.
- 4002. Writing Projects. (3). (401)**  
Internship for students who have completed basic journalism courses or whose experience has prepared them to handle the duties; students will work in practical assignments or will do approved research in journalism.
- 4003. Writing Projects. (3). (402)**  
Continuation of Journalism 4002.
- 4004. Journalism in the Secondary Schools. (3). (421)**  
Organization and direction of journalism courses in the high school; financial problems of high school publications and their relation to educational objectives; public relations and preparation of news releases for school administrators. Intended primarily for those students who expect to teach journalism or to supervise publications in the high school.
- 4005. History of Journalism. (3). (411)**  
A study of the origin and development of American journalism; students who enroll in this course should have completed History 2601 and 2602 or the equivalent.
- 4006. Literature of Journalism. (3). (440)**  
A bibliographical approach to the field of mass communication, consisting of critical reading of selective works.
- 4008. Advanced Press Photography. (3).**  
A continuation of Journalism 3111 with emphasis placed on materials for duotones and for two-color, three-color, and four-color separation processes.
- 4111. The Editorial. (3). (412)**  
The work of the editor and the editorial writer, with emphasis on editorial problems, methods, policies, and style.



**4200. Industrial and Business Journalism. (3).**

Company publications, both internal and external, businesspapers, and other specialized, multi-purpose publications, including newsletters. An examination of the editorial, business, advertising, and circulation departments of businesspapers.

**4210. Religious Journalism. (3).**

An introduction to media coverage of religion; the history of religious publications; religious journals today; career opportunities in the field of religious journalism. **PREREQUISITE:** junior standing or permission of instructor.

**4221. Community Newspaper Management. (3). (413)**

A survey of the economic, social, and cultural aspects of small town daily and weekly newspapers, with emphasis on the role of the editor in community life.

**4222. Public Relations. (3). (450)**

The development, scope, and modern role of public relations, with emphasis on case studies, lectures, and experimentation with major public relations tools and practices.

**4232. Public Relations Techniques. (3).**

Booklet production, writing news releases, preparing visuals for speeches, producing slide presentations, writing annual reports, planning and budgeting, and other tasks customarily assigned to the public relations practitioner. **PREREQUISITE:** Journalism 4222.

**4242. Public Relations Projects. (3).**

Students who have completed basic journalism and public relations courses are assigned as interns in local public relations offices to work under supervision of qualified practitioners. **PREREQUISITE:** Journalism 4232.

## LATIN

(See FOREIGN LANGUAGES)

## LIBRARY SERVICE

(See ELEMENTARY EDUCATION)

## MANAGEMENT

PROFESSOR JAMES M. TODD, *Chairman*

*Room 101, The College of Business Administration Building*

Requirements for the major and minor in management are listed on page 170.

**1010. Introduction to Business. (3). (101)**

A survey course to acquaint beginning business students with the major institutions and practices in the business world, to provide the elementary concepts of business, and to act as an orientation course for selection of a specific major. Open to freshmen only.

**2711. Business Statistics I. (3). (271)**

*(formerly 3710)*

Procedures of collection, analysis, presentation and interpretation of economic and business data. **PREREQUISITE:** Mathematics 1203 or higher.

**3110. Organization and Management. (3).**

An examination of the management functions and the basic concepts and principles of management. Emphasis will be placed on planning, decision-making, organization, coordination and control, and accepted practices used in the operation of the business firm. PREREQUISITE: Accounting 2020 and Economics 2120.

**3220. Labor Legislation. (3).****(322)**

Historic and philosophic background for labor legislation with emphasis on recent legislation in the labor area and the effect of these laws on social and economic institutions. PREREQUISITE: Management 3110.

**3711. Business Statistics II. (3).****(471)**

Extension of the range of topics covered in Business Statistics I to include methods of correlation, analysis of variance, forecasting and general business research. PREREQUISITE: Management 2711.

**3750. Introduction to Data Processing Systems. (3).****(381)**

This course is designed to give an introduction to the characteristics of electronic machines and their potential uses. Emphasis is placed on the areas of: data equipment operation; the concepts of programming as required by an appropriate business related computer language; data processing equipment acquisition and use; and, the data processing organization. The objective is to equip the student to communicate with data processing personnel but not, in itself, to prepare the student for technical employment in the field. PREREQUISITE: three semester hours of college mathematics.

**4210. Personnel Administration. (3).****(421)**

Employer-employee relationship; job analysis; recruitment, selection, training, transfer, promotion, and dismissal of employees; industrial unrest; wage plans and policies; employee health, interest, and morale; dealing with unions. PREREQUISITE: Management 3110.

**4220. Collective Bargaining. (3).****(422)**

Labor-management relations from the standpoint of collective bargaining contracts, with emphasis on the process of negotiating agreements, including procedures, tactics, and subject matter. Fall semester. PREREQUISITE: Management 3110.

**4410. Management of Business Enterprise. (3).****(442)**

Consideration is given to over-all policy formation and practice in the operation of new and going business concerns, with emphasis on problems of nonfinancial management. PREREQUISITE: Management 3110.

**4420. Human Relations in Business. (3).****(443)**

A study of the principles of human relations as applied to business. PREREQUISITE: Management 3110.

**4510. Production Management. (3).**

A course devoted to the development of scientific management, organization of the production function, operation and control of production systems, application of the analytical methods of cost analysis, simulation, and statistical analysis. Applications of schematic analysis to production will also be covered. PREREQUISITE: Management 3711 and Management 3110.

**4750. Computer Programming Principles and Applications. (3).**

A course emphasizing the programming of electronic digital computers. Current programming languages will be taught such as FORTRAN and COBOL. The students will be encouraged to program and run several business oriented problems in both languages. PREREQUISITE: Management 3750 and one college level mathematics course, or permission of the instructor.

**4760. Systems Analysis and Operations Research. (3).**

An introductory study of decision-making which concentrates on the model building process within the decision theory framework. The electronic computer will be used where appropriate to solve problems of linear programming, waiting line theory, simulation, game theory, and other statistical problems of a business and economic nature. PREREQUISITES: Management 3110, 3711, 4750 or consent of instructor.

**4780. Systems Design for Business Activities. (3).**

Emphasis will be given to computer systems design for typical business applications involving the automation of business activities. This course will concern: estimates of computer requirements; organizational arrangement; planning the total system; flow-charting; conversion problems; cost and performance evaluation. The objective is to simulate the middle level executive role in the transition and integration of business operations into computer oriented systems. PREREQUISITE: Management 3750, 3711.

**4790. Management Information and Reporting Systems. (3).**

A comprehensive view of the decision-maker's information requirements and the role of current information gathering means and methods. Problems and techniques concerning the design and installation of responsive systems will be examined with special attention to the executive use of the system's product. A systems approach utilizing current planning and control models, such as PERT and CPM, will be studied through current literature and texts in the computer field. PREREQUISITE: Management 3750, 4780.

**4910. Management Problems. (1 to 3). (495)**

Student will carry on approved research projects in his major area under supervision of staff members. PREREQUISITE: Senior standing and permission of the department chairman.

*Graduate courses in Management: Some of the 4000 courses described in the preceding section may be taken for graduate credit. For further details of the graduate program see The Bulletin of The Graduate School.*

## MARKETING

PROFESSOR WAYLAND A. TONNING, *Chairman*

*Room 105, The College of Business Administration Building*

Requirements for the major and minor in marketing are listed on page 170.

**3010. Basic Marketing. (3). (301)**

General survey of the marketing structure; development, functions, costs, institutions and pricing. Both semesters. PREREQUISITE: Second semester sophomore.

**3011. Marketing Systems. (3).**

Application of the systems approach to the study of the existing mar-

keting structures, channels, and the operating characteristics of the marketing subsystems.

**3012. Marketing Promotions. (3).**

An interdisciplinary approach to the total area of promotion, including an overview of the promotional process, insights into the operations of promotions (e.g., communications, psychology, sociology, and other disciplines), and an exploration into the "why" of the promotional process. Both semesters. PREREQUISITE or COREQUISITE: Marketing 3010.

**3140. Advertising Fundamentals. (3).**

Survey of the field of advertising including agencies, media, layout, copy, typography. Both semesters. PREREQUISITE or COREQUISITE: Marketing 3012, or permission of the instructor.

**3170. Advertising Problems. (3).**

A case study of the advertising functions, emphasizing the determination of advertising strategy; the planning of creative strategy; planning of media strategy; evaluation of advertising results and an introduction into organization and management of the advertising function. Both semesters. PREREQUISITE: Marketing 3140.

**3210. Logistics Administration. (3).**

A critical examination of the managerial aspects of the logistics function in the business enterprise. Consideration is given to the functioning of the logistics system from both an internal and external point-of-view. Fall semester. PREREQUISITE or COREQUISITE: Marketing 3010.

**3220. Industrial Marketing. (3).**

A comprehensive survey of the industrial market—products, structure and functioning. An examination of those segments of the industrial market concerned with agricultural raw materials and products purchased by governmental agencies is also included. Spring semester. PREREQUISITE or COREQUISITE: Marketing 3011.

**3320. Retail Store Management. (3).**

A study of the principles that underlie the successful operation of retail institutions as well as a survey of career opportunities and literature in the field of retailing. Both semesters. PREREQUISITE or COREQUISITE: Marketing 3011, or permission of instructor.

**3330. Retail Merchandising. (3).**

An analysis of the buying function at the retail level. Study is directed into the areas of organizing the buying function; determination of what to buy; selection of sources; timing of purchases; pricing and merchandising; and control of the buying function. Both semesters. PREREQUISITE: Marketing 3320.

**3410. Sales Fundamentals. (3).**

Covers the basic essentials of salesmanship, sales theory, sales techniques and sales role playing. The history of selling and the salesman's role in our economy are included to provide a deeper understanding of the contributions made by the American salesman. Both semesters. PREREQUISITE or COREQUISITE: Marketing 3012, or permission of instructor.

**3430. Sales Promotion. (3).**

This course is designed to acquaint students with the vast and often unassigned area of marketing that exists between advertising and per-



sonal selling. This course brings into focus the vital marketing functions that must be performed by manufacturers or middlemen as products flow down the channels of distribution. Both semesters. PREREQUISITE: Marketing 3010 or permission of instructor.

**4010. Marketing Administration. (3).**

Study of marketing in depth using the case approach. Study includes consumer, product, market analysis, pricing, channel selection, promotion, wholesaling, retailing, and legal implications of the marketing system. Both semesters. PREREQUISITE: Marketing core and senior standing.

**4080. Marketing Research. (3). (491)**

Research methods and procedures used in the field of marketing to help solve business problems. Both semesters. PREREQUISITES: Management 2711 and senior standing.

**4150. Advertising Media and Campaigns. (3).**

An investigation of the characteristics and uses of media by companies, product lines and reasons for selection. The last part of the semester will be devoted to the development of a campaign for a particular firm. Fall semester. PREREQUISITE: Marketing 3140.

**4220. Purchasing. (3). (422)**

A study of the policies for effective and efficient procurement of goods and services for today's industry. Close attention will be given to the measurement and evaluation of purchasing performance. Fall semester. PREREQUISITE: Marketing 3010.

**4330. Credit and Collections. (3). (485)**

A study of the American credit system and collection methods used today, significance of credit information, management of charge accounts, credit and collection correspondence, mercantile credit and importance of credit to our economic well-being. Spring semester. PREREQUISITE: Marketing 3010.

**4410. Sales Management. (3).**

A survey course designed to define and describe the major sales management functions and to provide controlled practical application of sales management functions through the utilization of the case study approach. Ultimately, the student gains an overview of the operation of marketing departments through the synthesis of three primary divisions of marketing management—sales administration, sales personnel activities, and sales control. Both semesters. PREREQUISITE: Marketing 3410.

**4420. Sales Training. (3).**

This course covers one of the most important staff activities within any marketing department—the training of sales personnel. Designed to develop salesmanship, the art of persuasion, into a teachable subject which will apply to the business world. Student is taught and self-taught, how to become a sales trainer and to develop an understanding of the training director's responsibilities. Spring semester. PREREQUISITE: Marketing 3410.

**4530. International Marketing. (3).**

A study of the bases and promotion of foreign trade; international marketing organizations and methods; technical and financial features of international marketing. Fall semester. PREREQUISITE: Marketing 3010.



**4910. Problems in Marketing. (1-3).**

Students will carry on approved research projects in their major area under the supervision of staff members. Both semesters. **PREREQUISITE:** senior standing and permission of the department chairman.

**4991. Marketing Internship. (3).**

Seniors majoring in marketing may, after receiving approval of the department chairman and professor concerned, obtain actual experience by working a minimum of 200 hours in approved marketing positions. Student may not be enrolled for more than 12 academic hours when enrolling for credit in work experience. Both semesters.

*Graduate courses in Marketing: For further details of the graduate program see The Bulletin of The Graduate School.*

## MATHEMATICS

PROFESSOR HOWARD S. KALTENBORN, *Chairman*  
Room 429, J. M. Smith Hall

Requirements for a major or minor in mathematics are given on page 157.

The Department of Mathematics offers general courses in mathematics and statistics for students in all departments of the University, with specially designed programs for the principal divisions of the University. The lower-level courses, and their purposes, are as follows:

**Liberal Arts or the Humanities:** Mathematics 1111, 1112. This sequence will satisfy the requirement in The College of Arts and Sciences for courses in mathematics or philosophy. A student who offers less than two units of high school mathematics for entrance must complete Mathematics 1201 before taking Mathematics 1111.

**Teacher Certification:** Mathematics 1181, 1182, 2581 for elementary certificate; Mathematics 1111 or any 1000-level course except 1201 for secondary certificate.

**Business Administration:** Mathematics 1201, 1202, 1203, 1312. With less than either (a) two units of high school algebra, or (b) one unit of algebra and one unit geometry, the student will begin with Mathematics 1201; with two units he should begin with Mathematics 1202, and with three or more units he should begin with Mathematics 1203. Completion of Mathematics 1203 or 1212 or 1312 required for graduation.

**Natural Science or Engineering:** Mathematics 1211, 1212, 1321, 2321, 2322. The student should offer four units of high school algebra and geometry, and he should begin with Mathematics 1321. If the student offers only three units, he should begin with Mathematics 1212. If he offers only two units, he should begin with Mathematics 1211. If he offers less than two units, he should begin with Mathematics 1201. Completion of Mathematics 2322 is required for a major in chemistry, engineering, mathematics, or physics.

Courses in mathematics should be elected from only one of the areas described above. If a student changes his major, he should consult an adviser in the Department of Mathematics concerning an acceptable substitution of courses to satisfy his new requirements in mathematics. Because of the similarity of the content of some courses at the freshman level, credit for at most 9 hours will be allowed in courses numbered below 1300.

MATHEMATICS

**1111. The Structure of Mathematics. (3).**

Nature of mathematics; sets; elementary logic; structure of number systems; related sets and functions; linear functions; polynomials.

**1112. The Structure of Mathematics. (3).**

Sequences and limits; polynomial calculus-differential and integral; counting, permutations, combinations; elementary probability; mathematical systems. PREREQUISITE: Mathematics 1111.

**1181. Concepts of Number. (3).**

Elements of set theory; introduction to logic; number symbols; number systems; fundamental operations of arithmetic.

**1182. Concepts of Algebra. (3).**

The structure of elementary algebra; mathematical phrases and sentences; equations and inequalities; applications. PREREQUISITE: Mathematics 1181.

**1201. Basic Mathematics. (3).**

Algebraic operations; linear systems; ratio and proportion; exponents; logarithms. RESTRICTION: Credit allowed only when taken as first course in mathematics by student with less than either (a) two units of high school algebra, or (b) one unit of algebra and one unit of geometry.

**1202. Finite Mathematics. (3).**

Compound statements; decision trees; logical relations; sets and set operations; partitions and counting; binomial and multinomial theorems; flow diagrams; probability theory and stochastic processes; decision theory. PREREQUISITE: two units of high school algebra or geometry, or Mathematics 1201.

**1203. College Algebra. (3).**

Systems of equations and inequalities; binomial theorem; functions and graphs, logarithmic and exponential functions, graphs of linear and quadratic equations. PREREQUISITE: three units of high school algebra and geometry or Mathematics 1202.

**1211. Basic Mathematics. (3).**

Exponents; fractions; linear and quadratic functions and graphs; quadratic equations and systems; progressions; interest; binomial theorem; permutations and combinations; probability. PREREQUISITE: two units of high school algebra or geometry, or Mathematics 1201.

**1212. College Algebra and Trigonometry. (3).**

Algebraic and trigonometric functions; inequalities; circle relations; trigonometric graphs; identities and conditional equations; approximate numbers; solution of triangles; inverse trigonometric functions; polynomials; complex numbers. PREREQUISITE: three units of high school algebra and geometry, or Mathematics 1211.

**\*1312. Elementary Calculus. (3).**

Introduction to the concepts and methods of elementary calculus of one real variable as related to rational, exponential, and logarithmic functions; the nature of derivatives; differentiation; application of the derivative; the nature of integration; the definite integral; applications of the definite integral. PREREQUISITES: Mathematics 1203 or 1211.

**\*1321. Analytic Geometry and Calculus. (4).**

Essentials of analytic geometry of the plane; limits and continuity; the nature of derivatives; differentiation of algebraic functions; applications of the derivative; basic concepts of integration and the definite integral. PREREQUISITE: 4 units of high school algebra, geometry and 12th grade mathematics or Mathematics 1212.

**2241. Matrix Theory. (3).**

Matrix algebra; elementary operations; equivalence; determinants; similarity; polynomial matrices; matrix analysis; applications. PREREQUISITE: Mathematics 1203 or 1211.

**2291. Mathematics of Finance. (3).**

Compound interest and annuities with applications; introduction to mathematics of life insurance. PREREQUISITE: Mathematics 1203 or 1211.

**2321. Analytic Geometry and Calculus. (4).**

Applications of the definite integral; differentiation, integration and analytical aspects of the elementary transcendental functions; techniques of integration; polar coordinates; additional topics in plane analytic geometry. PREREQUISITE: Mathematics 1321.

**2322. Analytic Geometry and Calculus. (4).**

Indeterminate forms; improper integrals; vectors and analytic geometry in 3-space; partial differentiation; multiple integrals; infinite series. PREREQUISITE: Mathematics 2321.

**2581. Concepts of Geometry. (3).**

Introduction to the idea of proof in a postulational system; development of the geometric relationships independent of number, including congruent triangles, similar triangles, parallelograms, and circles; applications of number in geometry including coordinate geometry, lengths, areas, and volumes. PREREQUISITE: Mathematics 1182.

**3111. Foundations of Analysis. (3).**

Arguments and proofs; symbolic logic; the axiomatic method; the real number system; functions and sequences; limits; continuity. PREREQUISITE: Mathematics 2321.

**3391. Differential Equations. (3).**

Ordinary differential equations including series solutions. PREREQUISITE: Mathematics 2322.

**3392. Vector and Tensor Analysis. (3).**

Determinants, e-systems and certain transformation equations; calculus of vectors, integrals dependent on a parameterized arc; integral transformations including Gauss' divergence theorem and Stokes' theorem; tensors and applications. COREQUISITE: Mathematics 3391.

**3711. Programming for Digital Computers. (3).**

Complete treatment of FORTRAN programming; flow-charting and algorithm specification; subroutines; examples of applications of statistics, numerical analysis, and simulation. PREREQUISITE: Mathematics 1321.

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\*Credit may be earned in only one of the following courses: Mathematics 1312 and 1321.

- 4111. Philosophy of Mathematics. (3).**  
 Logical methods; axiomatic systems; independency and consistency; the nature of mathematics. PREREQUISITE: Mathematics 3111 or permission of instructor.
- 4151. History of Mathematics. (3).**  
 The development of mathematics from the earliest times to the present; problem studies; parallel reading and class reports. PREREQUISITE: Mathematics 3111.
- 4171. Undergraduate Mathematics Seminar. (1).**  
 Readings and discussions of mathematical topics of current interest. PREREQUISITE: permission of the instructor.
- 4172. Undergraduate Mathematics Seminar. (1).**  
 Readings and discussions of mathematical topics of current interest. PREREQUISITE: permission of instructor.
- 4221. Theory of Numbers. (3).**  
 Divisibility properties of integers; prime numbers; congruences; diophantine equations; quadratic residues; number theoretic functions. PREREQUISITE: Mathematics 3111.
- 4241. Linear Algebra. (3).**  
 Matrices; vector spaces; linear transformations; polynomials; determinants. PREREQUISITE: Mathematics 2322.
- 4351. Real Variables. (3).**  
 Continuous functions; uniform continuity; differentiation; integration; improper integrals; sequences and series; power series; uniform convergence. PREREQUISITES: Mathematics 2322, 3111.
- 4361. Complex Variables. (3).**  
 Complex numbers; point sets and mappings; analytic functions; integration. PREREQUISITE: Mathematics 2322.
- 4391. Applied Mathematics. (3).**  
 Laplace transforms; Fourier series; introduction to partial differential equations. PREREQUISITE: Mathematics 3391.
- 4392. Applied Mathematics. (3).**  
 Partial differential equations. PREREQUISITE: Mathematics 4391.
- 4411. Topology. (3).**  
 Introductory set theory; metric spaces; topological spaces; mappings; Hausdorff spaces, connectedness and compactness. PREREQUISITE: Mathematics 2322, 3111.
- 4711. Advanced Computer Programming. (3).**  
 Advanced digital computer programming including the full utilization of Operating Systems, Scientific Sub Routine Packages, and hardware capabilities such as tape and disk data management. PREREQUISITE: Mathematics 3711.
- 4721. Numerical Analysis. (3).**  
 Study of computer oriented methods for solution of polynomial and transcendental equations and ordinary differential equations; matrix calculations including inverses, determinants, eigenvalues, eigenvectors, etc.; numerical quadrature; polynomial interpolation; least squares curve fitting. PREREQUISITE: Mathematics 2321 and 3711.

## STATISTICS

**2611. Elementary Statistics. (3).**

(formerly Mathematics 2611).

Basic statistical concepts; elementary probability theory; normal curve and applications; linear, multiple, and partial correlation; statistical inference. PREREQUISITES: Mathematics 1203 or 1211.

**3631. Introductory Probability. (3).**

(formerly Mathematics 3631).

Permutations and combinations; probabilities for finite sample spaces; conditional probabilities; discrete and continuous random variables; moments and moment-generating functions. PREREQUISITE: Mathematics 2322.

**4611. Statistical Methods. (3).**

Intended for students in the engineering, physical, and mathematical sciences. Binomial, hypergeometric, Poisson, multinomial and Chi-square distributions; tests of randomness and non-parametric tests; t-tests; tests of hypotheses; correlation analysis. PREREQUISITE: Mathematics 2321.

**4613. Introductory Statistical Theory. (3).**

Distributions of functions of random variables; limiting distributions; correlation and regression; Neyman-Pearson Lemma; likelihood ratio tests; sufficient statistics; point estimations. PREREQUISITE: Statistics 3631.

**4631. Probability. (3).**

Stationary and non-stationary stochastic processes; Markov chains and applications; continuous time Markov chains; Poisson processes and applications; Brownian motion; branching processes. PREREQUISITES: Statistics 3631, Mathematics 2241.

*(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)*

**5261. Algebraic Theory. (3).**

Theory of groups, rings and fields, with applications. PREREQUISITE: Mathematics 3111 or 7181.

**5511. Geometric Theory. (3).**

Foundations of geometry; extensions of Euclidean geometry; non-Euclidean geometry; introduction to projective geometry. PREREQUISITE: Mathematics 3111 or 7181.

*Graduate courses in Mathematics: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

## MECHANICAL ENGINEERING

PROFESSOR HARWOOD F. MULLIKIN, *Chairman*

*Room 108A, Engineering Building*

Requirements for the B.S. in Mechanical Engineering are listed on page 191.

**2332. Dynamics. (3).**

Kinematics and kinetics of particles and rigid bodies. PREREQUISITE: Civl. 2131.

*Three lecture hours per week.*



- 3311. Engineering Thermodynamics I. (3). (4021)**  
First, second, and third laws of thermodynamics and their applications to engineering problems. PREREQUISITE: Mathematics 2322; Physics 2512.  
*Three lecture hours per week.*
- 3312. Engineering Thermodynamics II. (3). (5311)**  
Thermodynamics of fluid flow including dynamic and energy relations; incompressible, compressible, adiabatic, and diabatic flows. PREREQUISITE: Mech. 3311, 3331.  
*Three lecture hours per week.*
- 3321. Principles of Design. (3). (4311)**  
Kinematic analysis of linkages, cams, gears, and mechanisms. Velocity, acceleration and force analysis of mechanisms; gyroscopic forces, balancing of machinery. PREREQUISITES: Mathematics 2322, Mech. 2332.  
*Two lecture, three laboratory hours per week.*
- 3322. Mechanics of Materials. (4).**  
Analysis of stress and strain of deformable solids; tension, compression, torsion and flexure. PREREQUISITE: Civl. 2131.  
*Three lecture, three laboratory hours per week.*
- 3331. Mechanics of Fluids. (4). (4011)**  
Statics and dynamics of fluids; applications to the measurement of properties of water and air flows. COREQUISITE: Engr. Mech. 2332.  
*Three lecture, three laboratory hours per week.*
- 3361. Materials Science. (4). (4061)**  
Structure and properties of solids; elements, crystal structure, imperfections, modification of structure for engineering purposes; characteristics of polymers, ceramics, and metals. PREREQUISITE: Physics 2512.  
*Three lecture, three laboratory hours per week.*
- 3381. Production Analysis. (3). (4312)**  
Machines, tools, and processes used in modern production; project work. PREREQUISITE: Mech. 3322.  
*Three lecture hours per week.*
- 4311. Heat and Mass Transfer. (4). (5321)**  
Conduction, convection, radiation, and diffusion; transport properties and their measurement; heat exchangers and high speed applications. PREREQUISITE: Mech. 3311.  
*Three lecture, three laboratory hours per week.*
- 4312. Mechanical Power Generation. (4). (5312)**  
Applications of principles of thermodynamics, heat and mass transfer and fluid mechanics to stationary power plants; fossil and nuclear fuel characteristics, selection, handling, and system design. PREREQUISITE: Mech. 4311.  
*Three lecture, three laboratory hours per week.*
- 4315. Ventilation and Air Conditioning. (3).**  
Psychrometrics. Heating, ventilating, air conditioning, refrigeration. PREREQUISITE: Mech. 3311.  
*Three lecture hours per week.*

- 4321. Mechanical Design and Analysis I. (3). (5301)**  
 Design of machine parts, bearings, gears, shafts, brakes, clutches, etc. Study of theory failures, impact fatigue, creep, thermal stress, etc., for machine parts. PREREQUISITES: Mech. 3321 and Mech. 3322.  
*Three lecture hours per week.*
- 4322. Mechanical Design and Analysis II. (4). (5302)**  
 Concepts of economics, availability, use, etc., in machine design. Student special design project. PREREQUISITE: Mech. 4321.  
*Three lecture, three laboratory hours per week.*
- 4331. Hydraulic- and Turbo-Machinery. (3). (5322)**  
 Fluid mechanics principles applied to pumps and turbines; theory and performance characteristics common to all fluid dynamics machinery. PREREQUISITE: Mech. 3331.  
*Three lecture hours per week.*
- 4341. Mechanical Engineering Analysis. (3).**  
 Numerical methods, computer programs and their interactions with mechanical engineering problems. PREREQUISITE: Upper division standing, consent of instructor.  
*Two lecture, three laboratory hours per week.*
- 4351. Nuclear Engineering. (3).**  
 Power generation. Peaceful uses of nuclear energy. PREREQUISITE: Upper division standing, consent of instructor.  
*Three lecture hours per week.*
- 4361. Metallurgy. (4).**  
 Physical metallurgy, heat treatment, and metallography. PREREQUISITE: Mech. 3361.  
*Three lecture, three laboratory hours per week.*
- 4371. Mechanical Vibrations. (3). (5331)**  
 Kinematics of harmonic and non-harmonic vibrations; system of one and several degrees of freedom, free and forced vibrations; self-excited vibrations. PREREQUISITE: Math. 3391.  
*Three lecture hours per week.*
- 4391. Mechanical Engineering Projects I. (1-3).**  
 Independent investigation of a mechanical engineering problem in consultation with instructor. PREREQUISITE: Consent of instructor.
- 4392. Mechanical Engineering Projects II. (1-3).**  
 Independent investigation of a mechanical engineering problem in consultation with instructor. PREREQUISITE: Consent of instructor.

## MUSIC

PROFESSOR ROBERT SNYDER, *Chairman*  
*Room 123B, Music Building*

Requirements for the major and minor in music are listed on page 157. The program for the Bachelor of Music degree is outlined on page 146. Requirements for the Bachelor of Music Education are listed on page 184.

**PIANO PROFICIENCY:** All music majors in all degree programs must demonstrate proficiency in piano. This may be done in either of two ways: (1) by successful completion of Music Education 1614, Class Instruction in Piano, or (2) by passing without credit the proficiency in piano based on the level of study described in Music Education 1614, Class Instruction in Piano. Copies of the requirements for the piano proficiency examination are available on request in the Music Office. Students choosing to meet the requirement through an examination should do so during registration or during the final examination period of the first semester in residence.

## I. THEORY AND COMPOSITION

### 1001. Basic Music Theory. (1).

Designed for students who plan to major in music but do not meet minimum standards for Music 1012-1032. Not allowable as credit toward the satisfaction of requirements for the major or minor.

*Two laboratory hours per week.*

**IMPORTANT NOTE:** Students registering for any of the following four theory courses must schedule both sections (e. g., 1012 and 1032; 1013 and 1033, etc.); together these sections constitute a correlated study of the rudiments of music, including harmony, counterpoint, homophonic forms, sight-singing, and ear-training.

### 1012. Aural Music Theory I. (1).

Sight-singing and ear-training using the unison material studied in Music 1032; keyboard harmony. COREQUISITE: Music 1032.

*Two laboratory hours per week.*

### 1013. Aural Music Theory I. (1).

Continuation of Music 1012 with more difficult unison and easier two-, three-, and four-part materials. COREQUISITE: Music 1033.

*Two laboratory hours per week.*

### 1032. Music Theory I. (3).

Traditional harmony including major and minor scales and triads in all positions in four-part writing. COREQUISITE: Music 1012. PRE-REQUISITE: theory placement examination.

### 1033. Music Theory I. (3).

Continuation of Music 1032 up to and including the dominant seventh chord; non-chordal tones; two-part counterpoint; harmonic analysis. COREQUISITE: Music 1013.

### 2014. Aural Music Theory II. (1).

Continuation of Music 1013 with classwork correlated with Music 2034. COREQUISITE: Music 2034.

*Two laboratory hours per week.*

### 2015. Aural Music Theory II. (1).

Continuation of Music 2014 with classwork correlated with Music 2035. COREQUISITE: Music 2035.

*Two laboratory hours per week.*

### 2034. Music Theory II. (3).

Continuation of Music 1033 with attention to secondary seventh chords; modulation to related keys; instrumental style. COREQUISITE: Music 2014.

**2035. Music Theory II. (3).**

Continuation of Music 2034 with introduction of altered and highly dissonant chord material; advanced modulation. COREQUISITE: Music 2015.

**2231. Music for Recreation. (3).**

The rudiments of music, conducting and song leadership, materials and methods, designed for recreation majors.

**3023. Composition. (2).**

Free composition in the smaller forms for piano, voice, and chorus; a study of style and analysis of master works. PREREQUISITE: permission of the instructor.

**3024. Composition. (4).**

Free composition in the smaller forms and sonatina form for piano, voice, chorus, and small ensembles; style and analysis. In subsequent semesters, students will determine individual style through practical application of contemporary compositional techniques, practice free composition in the larger forms and in all forms of various media; work with contemporary adaptations of older forms, calligraphy and preparation of manuscripts; and analyze contemporary works. PREREQUISITE: permission of the instructor. *Note:* May be repeated for credit, but not for the purpose of improving the grade originally given.

**3028. Counterpoint I. (2).**

A study of the modal contrapuntal technique of the sixteenth century; writing in two and three parts in the style of Palestrina and Lassus; analysis. PREREQUISITES: Music 1013 and 1033.

**3029. Counterpoint II. (2).**

A study of contrapuntal techniques of the eighteenth century; writing in two to four parts; canon and fugue. PREREQUISITE: Music 3028.

**3030. Counterpoint III. (2).**

A study of contrapuntal techniques of the classic and romantic periods. PREREQUISITE: Music 3028.

**3031. Counterpoint IV. (2).**

Contrapuntal techniques of the twentieth century; analysis of serial techniques in contemporary styles. PREREQUISITE: Music 3028.

**3033. Form and Analysis I. (2).**

A study of the basic principles underlying the formal structure of music; analysis of outstanding examples of the suite, sonata, and symphony. PREREQUISITES: Music 1013 and 1033.

**3034. Form and Analysis II. (2).**

Continuation of Music 3033. PREREQUISITE: Music 3033 or permission of the instructor.

**3035. Orchestration. (3).**

A study of the compass, possibilities, and tonal characteristics of orchestral and band instruments; arranging of various types of compositions for string, woodwind, and brass ensembles; arranging of piano, organ and choral compositions for full orchestra. PREREQUISITES: Music 1013 and 1033.

**3036. Band Arranging. (3).**

Transcriptions of selected works for band and wind ensemble; stage band arranging. PREREQUISITE: Music 3035.

**4030. History of Theory. (3).**

The development of harmony, counterpoint, theoretical systems in the western world from Pythagoras to the present.

**4031. Seminar: Music Theory and Analysis. (3).**

An advanced course in theory, counterpoint, and analysis of literature. Contrapuntal and harmonic techniques. Research; theoretical problems from a pedagogical point of view; writing in strict and free styles. Recommended as a review course for graduate students. PREREQUISITE: permission of the instructor.

**4033. Critical Studies in Music. (3).**

Directed research in music theory, history and literature; a study in depth related to the major concentration area; required of theory majors; term paper.

**4039. Compositional Techniques of the Twentieth Century. (3).**

A writing course employing the harmonic and contrapuntal techniques and devices from Debussy to the present.

## II. HISTORY, LITERATURE, AND APPRECIATION

**1121. Introduction to Music I. (2).**

An introduction to music history and literature; significant compositions from the 16th Century to the present are oriented to the proper social, cultural, economic and political setting in order to bring about the most effective understanding and enjoyment of the music. Required of all music majors.

**1122. Introduction to Music II. (2).**

Continuation of Music 1121.

**1131. Music Appreciation. (3).**

An introduction to music through a study of its literature and history; significant compositions are oriented to their proper social, cultural, economic and political settings in order to bring about the most effective understanding and enjoyment of the music. Open without prerequisite to non-music majors.

**2131. Afro-American Music. (3).**

A survey of West African music and the American music derived from it. Appreciation of the complex melodic-polyrhythmic improvisational style of African music and its relationship to Brazilian, Caribbean, and North American Negro music.

**4121. Song Repertory. (2).**

Basic repertoire of old Italian airs and German lieder, as well as an introduction to the French repertoire of the nineteenth century.

**4122. Song Repertory II. (3).**

The French art song and solo vocal works of other nationalistic schools, as well as English and American song literature.



**3131. History of Music to 1600. (3).**

A study of the development of the significant musical styles with special attention to the individual contribution of the major composers. PREREQUISITES: Music 1013 and 1033 or permission of the instructor.

**3132. History of Music Since 1600. (3).**

A continuation of Music 3131. PREREQUISITES: Music 1013 and 1033 or permission of the instructor.

**3825. Dramatic Coaching. (2).**

Individual and/or class instruction in the interpretation of operatic and song literature. May be repeated for credit.

**4100. Study and Travel in Music. (3 or 6).**

Specialized study and travel under the direction of a faculty member of the Department of Music.

**4131. Comparative Arts. (3).**

Cultural activities in their interrelation with each other and with corresponding historic and economic events. Open without prerequisite to non-music majors of junior and senior standing.

**4132. Modern Music. (3).**

Contemporary music and composers from Debussy to the present time, including the works of Stravinsky, Bartok, Hindemith, Schoenberg, and American contemporaries. PREREQUISITES: Music 3131 and 3132 or permission of the instructor.

**4133. The Opera and the Music Drama. (3).**

A survey of the opera before Richard Wagner; study of Wagner's music dramas and operas of his contemporaries; dramatic and musical significance of each phase of the development of the two forms. PREREQUISITES: Music 3131 and 3132 or permission of the instructor.

**4134. Piano Pedagogy. (3).**

A study of recommended literature at various levels of musical and technical accomplishment with emphasis on teaching techniques for the satisfaction of problems at each of these levels. A requirement for piano majors but open to non-keyboard majors with keyboard facility and to piano teachers.

**4137. Judeo-Christian Music. (3).**

History of church music from the temple to 1000 A.D. Considerable emphasis on Hebrew music, its use as related in scripture and the form and use of service music in the present day temples. Music for sabbath and festival services.

**4138. History of Liturgies. (3).**

A study of the services of the liturgical churches and the music used generally and specifically by these churches.

**4139. Hymnology. (3).**

A study of hymns, their authors, composers, and role in liturgical churches.

COLLEGIUM MUSICUM: Laboratory in Music History

**0141, 1141, 3141. Early Musical Instruments: Performance. (1, 1, 1).**

(lute, viols, recorders, 18th century transverse flute, etc.)

**0142, 1142, 3142. Early Musical Instruments: Repertory. (1, 1, 1).**

(madrigal motet, chanson, consort music, cantata and dance suite for instruments and/or voices)

**0145, 1145. Musical Fundamentals for the Non-Specialist. (1, 1).**

For the *collegium musicum* participant lacking background in formal theoretical training. PREREQUISITE: Permission of the instructor.

**4143. Problems in Editing (Notation). (1-3).**

The transcription of early notational systems into modern notation; keyboard and lute tablatures (the designation of implied voicing); early mensural notation (application of tempo indications, barring, and meter to music notated in symbols lacking these elements). (May be repeated for credit.)

**4144. Problems in Editing (Performance). (1-3).**

Improvisation and conventions of performance that result in alterations of notated symbols (thorough bass improvisation, ornamentation, *musica ficta*, rhythmic alterations, etc.). (May be repeated for credit.)

*Note:* All courses except Music 0145 and 1145 may be repeated for credit, but not for the purpose of improving the grade originally given.

### III. CONDUCTING

**3235. Choral Conducting. (3).**

Fundamentals of conducting; organizing and developing choral groups at all levels; rehearsal procedures; materials. PREREQUISITES: Music 1013 and 1033.

**3236. Instrumental Conducting. (3).**

A study of the various problems encountered in preparation and conducting in instrumental scores; individual practice with the opportunity for each student to conduct instrumental groups. PREREQUISITES: Music 1013 and 1033.

**3239. Score Reading. (3).**

Realization of open score at the keyboard; vocal scores, small orchestra and large orchestra scores; clefs, transpositions, etc.; employing literature from various periods of music history.

**4237. Church Choir and Console Conducting. (3).**

Instruction in the techniques of conducting for both adult and youth or children's choirs designed to meet the need of all church music majors, directors and combination organist-directors who must conduct and play simultaneously.

**4238. Service Playing. (3).**

Designed to give the student practical keyboard work in performance of the basic music used in liturgical and non-liturgical services. Includes keyboard harmony, modulation and simple improvisation.

### IV. APPLIED MUSIC (INDIVIDUAL LESSONS)

Applied music is offered at three levels: (1) preparatory, (2) lower division, and (3) upper division. Lessons are given by members of the university faculty and by special instructors. Practice facilities are provided without charge, but there are additional fees for the individual lessons.

**FEES:** The fee for all private lessons in brasses, composition, organ, percussion, piano, strings, woodwinds, and voice is \$50 per half-hour lesson per semester. Those students who are majoring in music (those currently registered for music theory) will pay only one \$50 fee per semester.

**REGISTRATION:** Students will register for individual lessons in the same manner and at the same time as they register for other courses; however, a student may not be assigned to a course number until he has auditioned. Auditions are held in the Music Building during advising and registration periods before each semester. Auditions may be scheduled in the Music Office, Room 123, Music Building. Any inquiries concerning credits or course numbers should be directed to the chairman of the Department of Music.

**CREDITS AND GRADES:** One semester hour credit will be granted for one thirty-minute lesson per week; two semester hours credit will be granted for two thirty-minute lessons or one hour lesson per week. Additional credit may be earned at the lower division and upper division level (see Music 1340, 1440, 1540, etc., and Music 3340, 3440, 3460, etc.). Students earning more than two credits per semester will continue to take two thirty-minute lessons or one hour lesson per week, however, they will be assigned additional practice and will be expected to perform at a higher level than those students registered for fewer credits. Grades are awarded on the same basis and have the same significance as in other subjects.

**EXAMINATIONS:** For an examination in applied music, each student will prepare and perform for members of the faculty of the Department of Music suitable musical selections and technical exercises of a grade of difficulty appropriate to his standing. Examinations are held in designated rooms on days set aside for this purpose near the end of each semester. Credit for the course will not be awarded to any student who fails to take the examination.

#### **0001. Applied Music Workshop. (NC).**

All students electing individual instruction in applied music and all full-time music majors are required to register for this course each semester and to attend one workshop per week.

#### **PREPARATORY COURSES**

Regardless of his initial degree of advancement, any student of the University may register for individual lessons at the preparatory level except in organ; organ students must have the ability to play the piano before beginning organ instruction.

- 0310. Brasses. (1).**
- 0320. Brasses. (2).**
- 0410. Organ. (1).**
- 0420. Organ. (2).**
- 0510. Percussion. (1).**
- 0520. Percussion. (2).**
- 0610. Piano. (1).**
- 0620. Piano. (2).**
- 0710. Strings. (1).**
- 0720. Strings. (2).**
- 0810. Voice. (1).**
- 0820. Voice (2).**
- 0910. Woodwinds. (1).**
- 0920. Woodwinds. (2).**

#### **LOWER DIVISION COURSES**

Applied music courses in the lower division include the study normally carried out during the freshman and sophomore years. The piano or instrumental student at this level should have had several years of intensive study prior to University entrance so that he has a secure, reliable, and well-grounded technique on his instrument. Organ students may begin at this level provided that they play the piano well and have reasonable ability in sight reading. Those who do not meet this requirement will register for Piano 0610 or 0620. To

be admitted to lower division study a student must first pass a qualifying examination. Qualifying examinations may be taken during the registration period; however, the last two weekends in the spring semester are set aside for students who plan to enter during the summer term or fall semester.

Students who fall short of the requirements for admission to the lower-division courses will be advised to register for preparatory courses until deficiencies are eliminated. Course numbers will be repeated for each semester of study.

- 1310. Brasses. (1).
- 1320. Brasses. (2).
- 1340. Brasses. (4).
- 1410. Organ. (1).
- 1420. Organ. (2).
- 1440. Organ. (4).
- 1510. Percussion. (1).
- 1520. Percussion. (2).
- 1540. Percussion. (4).
- 1610. Piano. (1).
- 1620. Piano. (2).
- 1640. Piano. (4).
- 1615. Harpsichord. (1).
- 1625. Harpsichord. (2).
- 1645. Harpsichord. (4).
- 1710. Strings. (1).
- 1720. Strings. (2).
- 1740. Strings. (4).
- 1810. Voice. (1).
- 1820. Voice. (2).
- 1910. Woodwinds. (1).
- 1920. Woodwinds. (2).
- 1940. Woodwinds. (4).

#### UPPER DIVISION COURSES

Promotion to the upper division does not follow automatically after the completion of four semesters of courses in the lower division but is made only on the recommendation of the upper division examining committee; such a recommendation will be made only if the student's proficiency as a performer bears promise of future artistic and professional qualities as a soloist. It is at this level that the student normally begins preparation for a recital.

- 3310. Brasses. (1).
- 3320. Brasses. (2).
- 3340. Brasses. (4).
- 3410. Organ. (1).
- 3420. Organ. (2).
- 3440. Organ. (4).
- 3460. Organ. (6).
- 3510. Percussion. (1).
- 3520. Percussion. (2).
- 3540. Percussion. (4).
- 3610. Piano. (1).
- 3620. Piano. (2).

- 3640. Piano. (4).
- 3660. Piano. (6).
- 3615. Harpsichord. (1).
- 3625. Harpsichord. (2).
- 3645. Harpsichord. (4).
- 3665. Harpsichord. (6).
- 3710. Strings. (1).
- 3720. Strings. (2).
- 3740. Strings. (4).
- 3810. Voice. (1).
- 3820. Voice. (2).
- 3840. Voice. (4).
- 3910. Woodwinds. (1).
- 3920. Woodwinds. (2).
- 3940. Woodwinds. (4).

#### JUNIOR AND SENIOR RECITALS

Most degree plans include a junior and/or a senior recital. Degree requirements for the Bachelor of Music degree are listed on page 146; for the Bachelor of Music Education degree on page 184; and for the Bachelor of Arts degree on page 157. A student must register for recital during the semester in which the recital is to be presented. Recital dates are scheduled tentatively at the beginning of the semester.

All required recitals must be approved by the faculty. This is normally accomplished no later than two weeks prior to the scheduled date at which time the entire program is performed for a faculty committee. Only upon successful completion of this hearing may a student confirm the scheduled date and make arrangements for the printing of the program.

For details regarding recommended and/or required recital literature see the Memphis State University Music Department Handbook.

#### 4101. Senior Conducting Recital. (NC).

#### 4102. Senior Composition Recital. (NC).

A recital of original compositions as a demonstration of the student's progress in various media. Equivalent to senior recital in one of the performing areas.

#### 3301. Junior recitals in brass instruments. (NC).

#### 4301. Senior recitals in brass instruments. (NC).

#### 3401. Junior recitals in organ. (NC).

#### 4401. Senior recitals in organ. (NC).

#### 3501. Junior recitals in percussion instruments. (NC).

#### 4501. Senior recitals in percussion instruments. (NC).

#### 3601. Junior recitals in piano or harpsichord. (NC).

#### 4601. Senior recitals in piano or harpsichord. (NC).

#### 3701. Junior recitals in string instruments. (NC).

#### 4701. Senior recitals in string instruments. (NC).



- 3801. Junior recitals in voice. (NC).
- 4801. Senior recitals in voice. (NC).
- 3901. Junior recitals in woodwind instruments. (NC).
- 4901. Senior recitals in woodwind instruments. (NC).

#### V. SMALL ENSEMBLES AND CHAMBER MUSIC

Advanced students are encouraged (and for certain degree plans are required) to participate in the following groups. Selection for membership is based on audition; courses may be repeated with the approval of the student's adviser. Three one-hour meetings per week.

- 3381. Brass Ensemble. (1).
- 3382. Stage Band. (1).
- 3581. Percussion Ensemble. (1).
- 3681. Piano Ensemble. (1).
- 3682. Accompanying. (1).
- 3781. String Ensemble. (1).
- 3881. Madrigal Group. (1).
- 3882. Opera Workshop. (1-6).
- 3883. Opera Soloists. (1).
- 3884. Opera Production Laboratory. (1-6).
- 3983. Woodwind Ensemble. (1).

#### VI. LARGE MUSICAL ORGANIZATIONS

Each music major is required to participate in one of the following major musical organizations during each semester as a full-time resident student: the University Band, the University Orchestra, the University Chorale, and the University Glee Club; he must obtain permission of the department chairman to receive ensemble participation credit for other musical organizations. Selection for membership is based on an audition; courses may be repeated with the approval of the student's adviser. Three one-hour meetings per week.

- 1392. University Band. (1).
- 1891. Men's Glee Club. (1).
- 1892. Women's Glee Club. (1).
- 1893. University Glee Club. (1).
- 3391. University Band. (1).
- 3791. University Orchestra. (1).
- 3891. University Chorale. (1).
- 3892. Opera Chorus. (1).
- 3893. Oratorio Chorus. (1).

*Graduate courses in Music: For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.*

## DIVISION OF MUSIC EDUCATION

PROFESSOR GEORGE JONES HARRIS, *Director*  
*Room 279, Music Building*

Requirements for the major and minor in music education are listed on page 184.

*See page 301 for statement concerning piano proficiency.*

**FIELD OF ENDORSEMENT FOR TEACHING.** *Endorsement may be obtained in Instrumental Music, in School Music, and in General Music. Normally a student can expect to be recommended in only one of these areas. School Music (vocal emphasis) applicants should be able to play piano accompaniments of average difficulty, should possess an adequate solo voice for school music purposes, and should schedule courses in a wide variety of choral activities. Instrumental Music applicants may satisfactorily meet piano and voice requirements with completion of Music Education 1614 and Music Education 1812, with their prerequisites. Study in one instrument of major emphasis, and participation in concert and marching bands, orchestra and a variety of smaller ensembles will also be required. A graduation recital is required of all students who expect to graduate with the Bachelor of Music Education with a major in School Music or in Instrumental Music. A major in General Music will prepare a student to teach both vocal and instrumental music. A graduation recital is not required for a major in General Music.*

*The following courses, Music Education 1312 through 1912, are designed to teach the music education major, already a competent performer in one field, the playing techniques of the major instruments of band and orchestra and the methods of instructing others in these techniques. Practice facilities are provided and there are no additional fees.*

**1312. Class Instruction in Brass Instruments. (2).**

Trumpet is used as the basic instrument; meets one class hour; outside practice is required.

*Two laboratory hours per week.*

**1512. Class Instruction in Percussion Instruments. (2).**

Snare drum is treated as the basic instrument.

*Two laboratory hours per week.*

**1611. Class Instruction in Piano. (1).**

Basic technique, with emphasis on sight-reading

*Two laboratory hours per week.*

**1612. Class Instruction in Piano. (1).**

Playing of songs used in school music teaching; community songs and hymns.

*Two laboratory hours per week.*

**1613. Class Instruction in Piano. (1).**

Simpler Bach chorales, more difficult songs, and accompaniments appropriate to the student's major field; memorization optional.

*Two laboratory hours per week.*

**1614. Class Instruction in Piano. (1).**

Selected easier studies and compositions by Czerny, Concone, Beethoven, Chopin, Schumann, Bartok, and others. The final examination will include materials to satisfy the requirements for the piano proficiency examination, copies of which are available in the music office.

*Two laboratory hours per week.*

**1711. Class Instruction in Stringed Instruments. (1).**

*Two laboratory hours per week.*

**1712. Class Instruction in Stringed Instruments. (1).**

*Two laboratory hours per week.*

**1811. Class Instruction in Voice. (1).**

*Two laboratory hours per week.*

**1812. Class Instruction in Voice. (1).**

*Two laboratory hours per week.*

**1912. Class Instruction in Woodwind Instruments. (2).**

Clarinet is used as the basic instrument; meets one class hour; outside practice required.

*Two laboratory hours per week.*

*The following course, Music Education 1391, provides familiarity with materials and routines suitable for use with school bands; it enables a student who plays his major instrument in the University Orchestra or the University Band to gain needed playing experience on other instruments and also enables voice, piano and organ majors to gain ensemble experience; may be repeated for additional credit; meets three hours per week.*

**1391. Music Education Band. (1).**

A laboratory course designed for the music education major providing familiarity with materials and routine suitable for young school bands. Each student will be expected to perform on a secondary instrument and to direct or teach the group. Emphasis will be placed on pedagogical procedures and teaching materials. PREREQUISITES: Music Education 1312, 1512, 1712, 1912.

**3231. Music for Children. (3).**

A consideration of appropriate musical experiences for children in the school, church, and home. Philosophy, aims, materials, methods, music appreciation as related to a study of instruments of the orchestra and to representative composers of the period 1650-1825. Major scales and key signatures; sight-singing with syllables and numbers; rhythm and meter studies. No prior training in music is required. Not open to music majors and minors.

**3232. Music for Children. (3).**

A continuation of Music Education 3231; minor scales, primary chords, musical styles and composers since 1825. PREREQUISITE: Music Education 3231.

**3233. Teaching for Appreciation in Grades 1 through 9. (3).**

The listening experience and other related music activities as an ap-

proach to the appreciation of music. **PREREQUISITE:** permission of the instructor.

**4201. Special Problems in the Teaching of Music. (1-3).**

This course provides for class or individual study of the problems and opportunities faced by the person who teaches music in the schools; for classroom teachers, music teachers and supervisors, principals, and administrators.

**4231. Music Supervision in Grades 1 through 9. (3).**

The teaching, supervision, and administration of music; basic concepts, philosophy, and objectives of music education.

**4232. Materials and Methods in Instrumental Music. (2).**

Developing the band or orchestra; balance and tone quality; conducting and interpretation; problems of intonation; literature for solos, ensembles, and groups of all grades.

**4233. Materials and Methods of Music, Grades K through 6. (2).**

A study of the aims and principles of music and of the traditional and contemporary methods of teaching music in the elementary schools. Creative approach to rhythmic, listening, instrumental and singing activities. The development of musical concepts.

**4234. Materials and Methods of Music, Grades 7 through 9. (2).**

A continuation of Music Education 4233, with appropriate emphasis on the junior high school music program.

**4235. Music Education: Principles and Programs. (3).**

Historical, philosophical, psychological, social, and aesthetic foundations of the total music education programs, grades K through 12. Administrative procedures and problems. The music educator's role in the community. Evaluative techniques.

**4236. Choral Materials, Literature and Techniques. (2).**

Fundamentals of conducting; organizing and developing choral groups at all levels; rehearsal procedures; materials. **PREREQUISITE:** Music 1013 and 1033.

**4240. Church Choir Organization and Training. (3).**

Designed to provide devices and materials for recruiting choir members of various age groups and for integrating them into an active musical program.

## NURSING

ASSOCIATE PROFESSOR LOIS HOLLOMON, *Chairman*  
Room 303, Clement Hall

Requirements for the Associate Degree in Nursing are listed on page 209.

**1001. Fundamentals of Nursing I. (5).**

A foundation for other nursing courses. Concepts of basic human needs and principles of nursing care related to meeting the needs are combined with nurse-patient and nurse-team relationships. Laboratory experience provides correlation with classroom learning.

*Three lecture, six laboratory hours per week.*

**1002. Fundamentals of Nursing II. (5).**

Continuation of Fundamentals of Nursing I. Emphasis is on more specific patient needs and nursing problems. Nursing intervention is developed toward meeting the psychological as well as the physiological needs of the patient. Laboratory experience provides opportunity for identification of needs and the formulation of a plan of care for the individual patient. PREREQUISITE: Nursing 1001.

*Three lecture, six laboratory hours per week.*

**2102. Maternal-Infant Nursing. (5).**

The normal physiological process is emphasized in the study of the mother and the newborn, progressing to the abnormalities which may occur. Problem solving techniques are utilized in planning and initiating nursing care in the clinical laboratory. PREREQUISITES: Nursing 1001, 1002.

*Three lecture, six laboratory hours per week.*

**2110. Nursing in Mental and Physical Illness. (10).**

A common-problems approach to nursing principles basic to the care of adults and children. Emphasis is placed on the normal growth and development from birth to death, both physical and emotional, and how behavior deviates from normal during illness. Laboratory experience is designed for depth and scope in formulating, implementing, and evaluating nursing care. PREREQUISITES: Nursing 1001, 1002, 2102, and 2110.

*Six lecture, twelve laboratory hours per week.*

**2111. Nursing in Mental and Physical Illness. (10).**

Continuation of Nursing 2110. The approach is through more complex patient-centered problems. PREREQUISITE: Nursing 1001, 1002, and 2110.

**2201. Nursing Perspective. (1).**

This course is designed to assist the student in adjusting to nursing practice. The status and problems of the occupation of nursing are studied with emphasis on the responsibilities of the registered nurse and her relationship with the nursing organizations. PREREQUISITES: Nursing 1001, 1002, 2102, 2110.

## OFFICE ADMINISTRATION

PROFESSOR RIENZI WILSON JENNINGS, *Chairman*

*Room 107, The College of Business Administration Building*

Requirements for the majors and minors in office administration-secretarial and in office administration-management are listed on page 172.

**1210. Elementary Typewriting. (3). (121)**

Use and operation of the parts of the typewriter, mastery of the keyboard, simple business and professional letters and reports, introduction to tabulations. Five meetings per week. Both semesters. Students who have completed one or more units of typewriting in high school may not take Office Administration 1210 for credit.



- \*1220. Intermediate Typewriting. (3). (122)**  
The typing of different styles of business letters, tabulations, and manuscripts; developing a typing rate of 45 words or more per minute. Both semesters.
- 2120. Fundamentals of Shorthand. (3). (211)**  
Basic principles of Gregg shorthand—alphabet, brief forms, phrases, and abbreviations; beginning dictation and pre-transcription training. Both semesters. Students who have completed one or more units of shorthand in high school may not take Office Administration 2120 for credit.  
*Five meetings per week.*
- 2130. Intermediate Shorthand. (3). (212)**  
(formerly Fundamentals of Shorthand II.)  
Review of shorthand theory, acquisition of ability to take shorthand and to transcribe accurately. Both semesters. PREREQUISITE: Office Administration 1220 or equivalent; Office Administration 2120 or equivalent.  
*Five meetings per week.*
- 3140. Advanced Shorthand. (3). (311)**  
Review of shorthand principles, daily speed practice, development of transcription skill for production of mailable transcripts. Both semesters. PREREQUISITE: Office Administration 3250 or Office Administration 1220.  
*Five meetings per week.*
- 3250. Advanced Typewriting. (3). (321)**  
Review of business letter styles, manuscripts and reports, statistical tables. Development of a typing rate of better than 60 words per minute. Both semesters. PREREQUISITE: Office Administration 1220.
- 3510. Business Communication. (3). (351)**  
The fundamentals of business communication are examined and studied with a view to a thorough understanding of the techniques of report writing and of some of the basic forms of letters. Emphasis is placed on the writing of reports, financial statements, minutes of meetings, abstracts, and specific types of routine letters. Attention is also given to selection and use of research mediums. Fall, spring and summer terms. PREREQUISITE: Completion of freshman English plus the ability to type.
- 4160. Secretarial Dictation. (1 or 3). (433)**  
Students will do stenographic work in some office on campus. The Instructor, after conferring with the office head, will plan remedial work designed to prepare student for stenographic employment upon completion of course. Both semesters. PREREQUISITE: Permission of the instructor.  
*Three or nine hours of office work per week.*
- 4270. Secretarial Typewriting and Office Machines. (3). (Formerly two courses, 3310 and 4260.)**  
Instruction and practice in use of secretarial office machines including

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\*Credit not allowed if student has credit for Secretarial Science 2230 or Secretarial Science 222.

electric typewriters; transcribing from voicewriting equipment; ink, spirit and offset duplication; copying machines. Spring and first summer term. PREREQUISITES: Office Administration 3250.

*Four hours per week.*

**4320. Applied Secretarial Practice. (3). (431)**

Qualifications, duties and training of a secretary; requirements for employment; organization of work; telephone etiquette; business reference books; receptionist techniques. Fall and summer.

**4330. Records Management and Control. (3). (432)**

*(formerly Applied Secretarial Practice II).*

Handling of incoming and outgoing mail; filing procedures; installation, administration, and control of geographic, numeric, subject and Soundex filing systems; practice in the several types of filing. Spring and summer.

**4400. Punched-Card Methods. (3).**

Introductory course in the operation and use of punched-card equipment. Key punching, sorting, tabulation and preparation of reports, card designing and application to problems in the fields of economics, marketing, accounting, personnel, education, and other areas of research. Both semesters.

**4401. Punched-Card Applications. (3).**

An advanced course in the field of data processing. The course provides study in flow charting, systems analysis, card layout, systems design and production work on unit record equipment. Both semesters. PREREQUISITE: Office Administration 4400 and Accounting 2020.

**4410. Office Management. (3). (442)**

Modern methods used in office organization and management, scientific office management, office reports, office correspondence, calculating and checking, filing, records retention, duplicating, handling the mail, planning procedures, planning for equipment, office machines, automation, planning for office space, physical working conditions and office layout. Fall semester.

*Graduate Courses in Office Administration—Office Management: Certain of the 4000 courses, described in the preceding section, may be taken for graduate credit. For further information concerning the graduate program, see The Bulletin of The Graduate School.*

## OFFICE MANAGEMENT

*(See Office Administration and Office Management)*

## PHILOSOPHY

PROFESSOR WILLIAM BRYAN BARTON, JR., *Chairman*  
*Room 319, Clement Hall*

*Philosophy Honors Program.* This program is reserved for those students who have a grade-point average of 3.0 or better. The student will be expected to prepare himself through course work and reading for a comprehensive examination to be given during the spring semester of his senior year. He will also be expected to do a senior essay in which he will demonstrate independent

work. The essay will be 30 or more pages. The subject must be approved before the semester in which he intends to graduate.

Students who plan to major in philosophy should begin their first year of study by taking Philosophy 1111 and Philosophy 1611. Either of these courses may be taken first, but it is not advisable for both to be taken in the same semester. See page 158 for requirements for the major and minor in philosophy.

**1111. Introduction to Philosophy. (3). (111)**

An introduction to philosophy through the great problems arising from man's reflection on the knowledge and nature of the world and human conduct in it. A study is made of some of the great books in philosophy where these problems are discussed.

**1611. Elementary Logic. (3). (112)**

An introduction to the principles of valid reasoning with emphasis on the nature of language, the fundamentals of deductive and inductive inference, and the use of logic as a practical human instrument.

**2211. History of Ancient Philosophy. (3).**

Selected readings from primary sources, supplemented by commentary from antiquity and modern scholarship, including the Pre-Socratics, Plato, Aristotle, and the Hellenistic period.

**2311. History of Modern Philosophy. (3). (312)**

An introduction to the great philosophers since the Renaissance, with special emphasis on Descartes, Spinoza, Hume, Kant, Hegel, Fichte and the great political and social philosophers of the nineteenth century.

**2411. The Conflict of Ideals in Contemporary Civilization. (3). (221)**

The philosophical implications of important current issues, with attention to the philosophical presuppositions of the cultural, intellectual, political, and economic conflicts of the modern world. Readings from contemporary authors.

**2511. Introduction to Ethical Thought. (3). (222)**

An elementary course in ethics with emphasis on a critical analysis of the principle ethical theories and their practical application to the problems of the individual and society. Readings from the great classics in the field.

**2622. Intermediate Logic. (3).**

Symbolic logic, including the propositional calculus, the lower functional calculus, and related topics. PREREQUISITE: Philosophy 1611 or permission of the instructor.

**3221. Plato and His Interpreters. (3).**

An examination of Plato's *Dialogues* with emphasis upon his methods and techniques; the basic doctrines and problems raised by differing interpretations of his thought. PREREQUISITE: Philosophy 2211.

**3232. The Philosophy of Aristotle. (3).**

This course constitutes an introduction to the thought of Aristotle and its problems. The reading will be from the *Categories*, *Physics*, *Metaphysics*, *De Anima*, and the *Nicomachean Ethics*. PREREQUISITE: Philosophy 2211.

**3341. Continental Rationalism. (3).**

Continental philosophy in the seventeenth century: Descartes, Spinoza, Malebranche, Leibniz, and Wolff. PREREQUISITE: one semester of philosophy or permission of the instructor.

**3351. British Empiricism. (3).**

A critical and historical review of the philosophies of Locke, Berkeley, and Hume. Special attention will be given to the place of British Empiricism in modern thought. PREREQUISITE: one semester of philosophy, or permission of the instructor.

**3371. The Philosophy of Kant. (3).**

An intensive study of the major philosophical works of Immanuel Kant, with special attention given to *The Critique of Pure Reason* and to the relation between Kant's critical philosophy and his ethics, aesthetics, and philosophy of religion. PREREQUISITE: Philosophy 2311 or permission of the instructor.

**3411. The History of Medieval Philosophy. (3).**

Selected readings from the Christian, Jewish, and Islamic philosophers of the Middle Ages, beginning with the emergence of Judeo-Christian ideas on the context of Greek thought and ending with the later scholastics. PREREQUISITE: One semester of philosophy, or permission of instructor.

**3421. The Rise of Analytic Philosophy. (3).**

The development of the views of analytic philosophers from Russell and Wittgenstein to Ayer, Wisdom and others. PREREQUISITE: one semester of philosophy, or permission of the instructor.

**3451. The Rise of Existentialism. (3).**

An historical and comparative study of the different existentialist writers and their relation to literature, religion and psychology. Readings from Kierkegaard, Nietzsche, Jaspers, Heidegger, Sartre, and Marcel. PREREQUISITE: one semester of philosophy, or permission of the instructor.

**3521. Contemporary Ethical Theory. (3).**

(322)

This will be a study of the works of the outstanding contemporary philosophers, such as Moore, Dewey, Stevenson, and Toulmin. PREREQUISITE: one semester of philosophy, or permission of the instructor.

**3551. Social and Political Philosophy. (3).**

An examination of the major philosophical theories of man and the state with emphasis upon the concepts of society, culture, institutions, government, law, power, authority, rights, and obligation. Selected readings. PREREQUISITE: one semester of philosophy, or permission of instructor.

**3661. The Development of Scientific Thought. (3).**

An historical introduction to science and scientific thinking, with selected readings from both ancient and modern scientists and philosophers of science. PREREQUISITE: one course in philosophy or a major in the natural or mathematical sciences.

**3662. Philosophy of Science. (3).**

An examination of the basic features of science. A detailed analysis of the problems of scientific procedure, theory construction, and verification both in the physical and social sciences will be made. PRE-

REQUISITE: one semester of philosophy, or permission of the instructor.

**3701. Foundations of Western Religion. (3).**

A study of primitive religion and representative national religions of the past. Readings from such sources as *The Gilgamesh Epic*, *The Hymn to Aten*, and the hermetic, rabbinic, and apocalyptic literature. Special attention will be given to the mystery religions, gnosticism, the hellenistic philosophers and to their cultural impact on Judaism and Christianity. PREREQUISITE: one semester of philosophy.

**3711. Philosophy of Religion. (3). (313)**

The contribution of philosophy to the basic issues of religion; a recognition of the principles which make religion valid throughout all its diverse forms and in the face of advancing scientific knowledge. PREREQUISITE: one semester of philosophy, or permission of the instructor.

**3721. The Philosophy of Living Religions. (3). (314)**

An historical and comparative survey of the philosophies of contemporary non-Biblical religions of the world, with readings in the important literature: Hinduism, Buddhism, Confucianism, Taoism, Islam, etc. PREREQUISITE: one semester of philosophy, or permission of the instructor.

**3761. The Philosophy of Art. (3). (315)**

The major forms of aesthetics as expressed in painting, sculpture, and music, with readings in the great classics in aesthetics. PREREQUISITE: one semester of philosophy, or permission of instructor.

**4011. Theory of Knowledge. (3). (412)**

The basic problems of epistemology, with readings in the important philosophers. PREREQUISITE: two courses in philosophy, or one course and permission of the instructor.

**4021. Metaphysics. (3). (413)**

An analysis of the basic metaphysical concepts and a critical study of old and new theories of the nature of being. PREREQUISITE: two courses in philosophy, or one course and permission of the instructor.

**4031. Hegel. (3).**

The philosophy of Logic, Nature, and Spirit will be delineated together with a detailed investigation of *The Phenomenology of Mind*. PREREQUISITE: two courses in philosophy.

**4301. Classical American Philosophy. (3). (415)**

The development of philosophical ideas in America from the Puritans until 1900, and their relationship to the growth of social, political, and scientific thought. PREREQUISITE: one course in philosophy or a major in American history or English literature.

**4302. Recent American Philosophy. (3).**

The development of philosophy in America from 1900 to the present, with particular emphasis on pragmatism, realism, naturalism, and analytic philosophy. PREREQUISITE: two courses in philosophy.

**4371. Philosophy of the Nineteenth Century. (3).**

Extensive readings in representative 19th century philosophers from Fichte to Nietzsche, with special attention given to such movements



as dialectical materialism, existentialism, positivism, Darwinism, neo-Kantianism and English idealism. PREREQUISITE: two courses in philosophy.

**4421. Philosophy of Mind. (3).**

A critical evaluation and study of contemporary resolutions of the mind-body problem. Account will be taken of modern theories of perception, intentionality, affective and cognitive states, and related issues from the fields of learning theory, phenomenology and depth psychology. PREREQUISITE: two courses in philosophy.

**4431. Recent Problems in the Philosophy of Language. (3). (414)**

A study is made of the basic characteristics of scientific language; the problems of meaning and existence are given close attention. PREREQUISITE: two courses in philosophy.

**4441. Phenomenology and its Historical Background. (3).**

A reading and discussion of basic texts in translation of Husserl's *Ideas, Cartesian Meditations* and from the *Crisis of European Science and Phenomenology*. PREREQUISITE: two courses in philosophy.

**4632. Advanced Logic. (3). (411)**

The nature of axiomatic systems, techniques of formalization, and the logical foundations of mathematics. PREREQUISITE: Philosophy 2622, or permission of the instructor.

**4891. Senior Honors Seminar. (3).**

Primary emphasis on the writings of papers to be discussed in the seminar. Open only to senior honor students majoring in philosophy.

*Graduate courses in Philosophy: For course descriptions and further details of the graduate program, see The Bulletin of the Graduate School.*

## PHYSICAL EDUCATION

(See Health, Physical Education, and Recreation)

## PHYSICAL SCIENCES

(See Chemistry)

## PHYSICS

PROFESSOR C. C. IJAMS, *Chairman*

*Room 116, Manning Hall*

Requirements for the major and minor in physics are listed on page 158.

**1111. Foundations of Physics. (3). (111)**

A thorough study of certain basic principles of science, with particular stress on the nature of physics, designed for the student who has had no previous training in physics. *Credit in this course will not apply toward a major or a minor in physics, chemistry, or physical science, nor will it satisfy any part of the science requirements in the pre-professional curricula.* PREREQUISITE: Two years of high school algebra or Mathematics 1211.

*Two lecture, two laboratory hours per week.*

- 1112. Foundations of Physics. (3). (112)**  
A continuation of Physics 1111. PREREQUISITE: Physics 1111. *Credit in this course will not apply to a major or a minor in physics, chemistry, or physical science, nor will it satisfy any part of the science requirement in the pre-professional curricula.*  
*Two lecture, two laboratory hours per week.*
- 1811. General Astronomy. (3).**  
Practical astronomy and the solar system; topics include motions of the earth and moon, apparent motions of the stars and planets, eclipses, time and the calendar, properties of bodies in the solar system. Occasional observation periods will be held at night. PREREQUISITE: Mathematics 1211 or equivalent.  
*Two lecture, two laboratory hours per week.*
- 1812. General Astronomy. (3).**  
A continuation of Physics 1811 with emphasis on a survey of stellar and galactic astronomy; topics include stellar distances and properties, interstellar matter, multiple stars, clusters, the milky way and other galaxies. Occasional observation periods will be held at night. PREREQUISITE: Physics 1811.  
*Two lecture, two laboratory hours per week.*
- 2111. General Physics. (4). (211)**  
The general physics course, covering the topics of mechanics, heat, and sound; required of all technology, pre-medical, pre-dental, and pre-pharmacy students. PREREQUISITE: Mathematics 1212.  
*Three lecture, two laboratory hours per week.*
- 2112. General Physics. (4). (212)**  
A continuation of Physics 2111, covering the topics of magnetism, electricity, light, and modern physics. PREREQUISITE: Physics 2111.  
*Three lecture, two laboratory hours per week.*
- 2511. Physics for Science and Engineering. (4).**  
Designed primarily for students intending to major in physics, chemistry, or mathematics; required of all students in the pre-engineering curriculum and recommended for students planning to teach physics in the secondary schools. PREREQUISITE or COREQUISITE: Mathematics 2321.  
*Three lecture, two laboratory hours per week.*
- 2512. Physics for Science and Engineering. (4).**  
A continuation of Physics 2511. PREREQUISITE: Physics 2511.  
*Three lecture, two laboratory hours per week.*
- 3010. Introduction to Modern Physics. (4).**  
A one-semester course designed to follow the basic sophomore physics courses and a recommended prerequisite for other advanced courses in physics. The properties of electrons, neutrons, protons, and other elementary particles, together with the basic concepts of nuclear structure, quantum theory, and relativity will be covered.  
*Three lecture, three laboratory hours per week.*
- 3111. Mechanics. (3). (311)**  
An advanced course in classical mechanics covering statistics and dynamics of particles, rigid bodies, fluid flow, work, energy, momentum,

force fields, and harmonic motion. Recommended as good preparation for advanced physics course.

*Three lecture hours per week.*

**3112. Mechanics. (3). (312)**

A continuation of Physics 3111. PREREQUISITE: Physics 3111.

*Three lecture hours per week.*

**3211. Electricity and Magnetism. (4). (321)**

A study of electromagnetic fields and waves, including such topics as dielectrics, induced electromotive force, magnetic energy, magnetic materials, Maxwell's equations, and reflection and refraction.

*Three lecture, three laboratory hours per week.*

**3212. Electricity and Magnetism. (4). (322)**

A continuation of Physics 3211. PREREQUISITE: Physics 3211.

*Three lecture, three laboratory hours per week.*

**3510. Electronics. (4). (351)**

Theory and applications of electronic devices such as vacuum and gas-filled tubes, photoelectric cells, and semi-conductors, with particular emphasis on basic electronic circuitry and laboratory instrumentation.

*Three lecture, three laboratory hours per week.*

**4010. Advanced Experimental Physics. (2).**

A course designed to teach the use of the more advanced laboratory equipment and instruments, with emphasis on effective planning and performance of experiments, the treatment and interpretation of data, and the use of scientific literature and library facilities.

*Six laboratory hours per week.*

**4011. Advanced Experimental Physics. (2).**

A continuation of Physics 4010.

*Six laboratory hours per week.*

**4051. Astrophysics. (3).**

Application of radiation laws to the interpretation of stellar structure. Introduction to radiative transfer in atmospheres. The spectral and luminosity classification of stars. Stellar populations and evolution.

*Three lecture hours per week.*

**4052. Astrophysics. (3).**

A continuation of Physics 4051, with emphasis on interstellar matter, stellar system, galactic structure, radio astronomy. PREREQUISITE: Physics 4051.

*Three lecture hours per week.*

**4110. Nuclear Physics. (3).**

Properties of atomic nuclei, radioactive transitions, alpha, beta, and gamma decay. Binding energy, nuclear forces and nuclear models.

*Three lecture hours per week.*

**4211. Optics. (4). (421)**

Geometrical and physical optics including such topics as thin lenses, spherical mirrors, lens aberrations, optical instruments, waves, interference, diffraction, absorption, transmission, and scattering.

*Three lecture, three laboratory hours per week.*

- 4212. Optics. (4). (422)**  
A continuation of Physics 4211. PREREQUISITE: Physics 4211.  
*Three lecture, three laboratory hours per week.*
- 4310. Radioisotope Technology. (3). (431)**  
Properties and detection of radiation, production of isotopes, use of detection devices, radiation chemistry, thickness and density gauging, activation analysis, moisture measurement, safety procedures, analytical tracer techniques, industrial radiography, procurement of radioisotopes and radioisotope licenses, and design of radiochemical laboratories.  
*Two lecture, two laboratory hours per week.*
- 4410. Introduction to Quantum Theory. (3).**  
Experimental basis of quantum theory; development of the Schrodinger equation and its solution for simple systems; selected applications in atomic and molecular structure.  
*Three lecture hours per week.*
- 4510. Thermodynamics. (3). (451)**  
A mathematical treatment of thermodynamics, including such topics as work, energy, enthalpy, entropy, reversible and irreversible processes, equilibria, specific heats, and phase transitions.  
*Three lecture hours per week.*
- 4520. Statistical Mechanics. (3).**  
Elements of kinetic theory and applications to gases, specific heats, magnetism, etc. Partition functions; introduction to Boltzmann statistics and quantum statistics.  
*Three lecture hours per week.*
- 4610. Solid State Physics. (3).**  
Consideration of such topics as lattice vibrations, specific heats, electrical and thermal conductors in solids, magnetism.  
*Three lecture hours per week.*
- 4710. Spectroscopy. (3).**  
Atomic and molecular structure as revealed by the study of radiation emitted and absorbed by substances.  
*Three lecture hours per week.*
- 4911. Introduction to Theoretical Physics. (3).**  
Special mathematical techniques used in the theoretical treatment of physical phenomena, boundary value problems, matrices, Fourier series and integrals, etc., as applied to advanced physical theory.  
*Three lecture hours per week.*
- 4912. Introduction to Theoretical Physics. (3).**  
A continuation of Physics 4911. PREREQUISITE: Physics 4911.  
*Three lecture hours per week.*

*Graduate courses in Physics: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

# POLITICAL SCIENCE

PROFESSOR WILLIAM R. NELSON, *Chairman*  
*Room 419, Clement Hall*

Requirements for the major and minor in political science are listed on page 158.

For information concerning the pre-law curriculum, see page 140.

*Important note: The prerequisite for all 3000 and 4000 level courses is either junior standing or the permission of the instructor.*

- 1101. Introduction to Political Science. (3). (121)**  
 A comparative analysis of the substance of public policy, the means of influencing that policy, and the basic issues of regulation and distribution of public goods.
- 1301. Survey of Modern Foreign Governments. (3). (122)**  
 A comparative study of political institutions and functions of selected foreign governments: Great Britain, France, Germany, and Russia.
- 2211. National Government. (3). (221)**  
 The origins of our system of government, the framing of the Constitution, the principles underlying constitutional government, citizenship, civil rights, political institutions, the national executive, the congressional organization and function, and the judicial process.
- 2221. State and Local Governments. (3). (222)**  
 The role of the state governments in the Federal System, political institutions, elections; the organization, functions, and problems of state government, with special emphasis on Tennessee government.
- 3216. Political Parties. (3).**  
 An analysis of the political party as a process of government, with emphasis upon party organization, activities, nominating and campaign methods, voter participation, and the two-party system.
- 3221. Local Government and Administration. (3).**  
 The political functions and structures of local units of government; legislative, executive, and judicial processes and structures; interrelationships of governments at various levels. Special attention is given to the county and small municipality.
- 3224. Metropolitan Government. (3).**  
 The functions and role of government in urban America in the context of urban politics and the social, economic, and governmental problems of cities and suburbs.
- 3306. Latin American Government and Politics. (3). (321)**  
 The forms of organization, the functions and operations of government in Latin America. Emphasis will be placed on the development of political institutions and present day trends.
- 3307. Government and Politics of Asia. (3).**  
 A study of the political and governmental institutions and process of selected Asian states.
- 3308. Government and Politics of Sub-Sahara Africa. (3).**  
 A study of the political and governmental institutions and process of selected African states, emphasizing sub-Sahara Africa.



3309. **Government and Politics of North Africa and Middle East.** (3).  
An analysis of the organization and functions of governments in an area dominated by the tenets of Islam, including an examination of the origin and development of the Arab-Israeli conflict.
3401. **History of Western Political Thought to the Eighteenth Century.** (3). (341)  
The history, formation, and development of political thought of the West, from the political philosophers of ancient Greece to the eighteenth century.
3402. **History of Western Political Thought from the Eighteenth Century to Present.** (3).  
The history, formation, and development of western political thought from the eighteenth century to the present.
3405. **Introduction to Law and Jurisprudence.** (3). (315)  
A study of the sources, functions, and processes of law.
3501. **International Politics.** (3). (331)  
A basic study of international relations, with emphasis on the methodology of international politics as a discipline and the basic political concepts of national policy and international politics.
3505. **International Organization.** (3).  
The history and nature of international organizations; political and ideological concepts toward international cooperation. The United Nations, the regional organizations, and international welfare and/or administrative agencies are used as specific studies.
3506. **American Foreign Policy Process.** (3). (411)  
An analysis of American foreign policy, with emphasis on the factors involved in developing and implementing policy.
3601. **Public Administration.** (3). (314)  
The concepts and practices of organization and management in the executive departments, national, state, and local; an analysis of bureaucracy, administrative theory, budgeting, personnel, and administrative leadership.
3602. **Public Personnel Administration.** (3).  
A study of the problems of the administrator in recruitment, selection, training, promotion, discipline, and morale of personnel.
4101. **Scope and Method of Political Science Research.** (3).  
Examination of the basic concepts, theories, and methods of modern political analysis and the application of various research techniques such as sample survey, statistical tests, data processing, and computing to the study of political behavior.
4102. **Political Behavior.** (3).  
An introduction to the contributions of the behavioral sciences to an understanding of the political system. Political behavior is examined as manifested in the formation of attitudes, public opinion, group organization, and political power.
4211. **The Constitution: Governmental Structure and Relationships.** (3). (414)  
An analysis of the relationships and controls of the three branches and

the nature of the division of power between the nation and the states, with emphasis on the role of the Supreme Court as the arbiter in the constitutional system.

4212. **The Constitution: Political and Civil Rights.** (3). (415)  
An examination of the judicial interpretation of the political and civil rights with emphasis on the period since 1875.
4213. **Development of United States Domestic Policy.** (3). (412)  
A study of the formation and execution of selected domestic policies (fiscal, economic, agriculture and conservation, welfare, grants-in-aid) with a detailed examination of the political and administrative environment of governmental decision making.
4214. **The Executive Process.** (3).  
A detailed study of the role of the executive in American politics.
4215. **The Judicial Process.** (3).  
An examination of the structure of the legal system and the role of the judiciary in government and politics. Emphasis is on the American legal system and the factors which enter into judicial decision-making, including political, social, economic, and psychological factors.
4216. **Pressure Groups and Public Opinion.** (3).  
A study based upon the assumption of the existence of a pluralistic society in which individuals sharing common interests are organized into political groups for the attainment of these interests, and how these groups influence public opinion in the political process.
4217. **The Legislative Process.** (3). (311)  
The origins, organization, functions, and activities of the modern legislature; making laws, supervising the administration, representing and informing the people.
4221. **State and Local Developmental Administration.** (3).  
Problems and issues in the administration of economic, social, and political development; planning, organizing, and programming of change, technical assistance, and resource administration.
4224. **Municipal Problems.** (3). (413)  
A study of selected problems in municipal administration (organization, personnel, fiscal, planning).
4301. **British Government and Politics.** (3). (423)  
The nature and development of the British Constitutional system, with special emphasis placed on the Cabinet, Parliament, and the Commonwealth organization and function.
4302. **The Politics of Developing Nations.** (3).  
The special political and economic problems of developing nations.
4305. **Soviet Government and Politics.** (3). (422)  
Organization and function of the authoritarian state, with emphasis on the role of the Communist Party and ideology.
4306. **Contemporary Latin American Politics.** (3).  
A study of contemporary problems in Latin American politics and inter-American relations.

- 4307. Government and Politics of Communist China. (3).**  
A study of the institutions of government, the political process, political elites, political groups and political socialization in Communist China.
- 4401. Modern Political Ideologies. (3).**  
Examination of the major political doctrines of the modern world; democracy, communism, fascism, capitalism and socialism; doctrines of developing nations; nationalism, racism, pacifism, and non-violence.
- 4405. American Political Thought. (3). (431)**  
An analysis of political thought in the United States from the colonial to the present time, with emphasis placed on the relation between political thought and political institutions and practices.
- 4501. Contemporary Problems in International Politics. (3).**  
A study of contemporary problems in international relations with emphasis on the major powers.
- 4502. Soviet Foreign Policy. (3).**  
Basic concepts of Soviet foreign policy; development and techniques; present patterns of Soviet relations with key nations; major problems in future relationships. PREREQUISITE: Political Science 4305 or Political Science 4505 or consent of instructor.
- 4503. Inter-American International Relations. (3).**  
Inter-American international relations, including a study of the various regional organizations as well as relations with the United States and Europe.
- 4504. International Law. (3). (432)**  
An analysis of the nature, scope, duties, rights, and evolutionary trends of international law.
- 4505. World Communism. (3).**  
The development of the world communist movement from its inception to the present: its Leninist origins; the Bolshevization and Stalinization of the movement; the rise of other national communist parties; the Sino-Soviet conflict and "polycentrism."
- 4506. Problems of American Foreign Policy. (3).**  
A study of American foreign policy problems taken from specific areas or issues of policy.
- 4602. Public Finance Administration. (3).**  
Detailed study of administrative and political problems of fiscal policy, the budgetary process, and fiscal controls.
- 4604. Problems of Public Administration. (3).**  
An examination of the administrative processes, including an investigation of laws, the powers, procedures, and the limitations upon administrative offices and agencies.
- 4701. Senior Seminar in Political Science. (3).**  
A review of professional literature generally or in a particular area of political science combined with significant research on special political problems. PREREQUISITE: senior standing and political science major.

*(The following course, offered in The Graduate School, is open to undergraduates within 36 semester hours of graduation. This course does not carry graduate credit nor is it applicable to any degree offered in The Graduate School.)*

**5106. The Political System. (3).**

A systematic analysis of the elements of the political system, showing the interrelationship of political culture (values, beliefs, attitudes, consensus), the formal and informal patterns of power, the patterns of interest, and the pattern of policy.

*Graduate Courses in Political Science: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

# PSYCHOLOGY

PROFESSOR ROBERT VIDULICH, *Chairman*

*Room 211, Johnson Hall*

Requirements for the major and minor in psychology are listed on page 158.

**IMPORTANT NOTE:** *Psychology 1101 and 1102 are prerequisite for all other courses in the Department of Psychology.*

**1101. General Psychology I. (3). (111)**

An introduction to psychology as a natural science emphasizing research findings and theoretical interpretations in the investigation of behavior and experience. Areas covered include individual differences, social processes, aptitudes and vocational adjustment, intelligence, personality, and behavior pathology.

**1102. General Psychology II. (3). (112)**

A continuation of Psychology 1101. Areas covered include sensation and perception, motivation and emotion, learning and retention, and physiological mechanisms.

**2301. Psychological Statistics. (3). (215)**

An introduction to the use of statistics in psychology, with emphasis on elementary theory of measurement and computation. Topics covered include measures of central tendency and variability, tests of significance, correlation procedures, and an introduction to multivariate analyses, analysis of variance, and non-parametric procedures.

**2302. Experimental Techniques in Psychology. (4). (Formerly 3202)**

An introduction to methods and techniques of observation and research on psychological topics, with emphasis on controlled laboratory experiments in such areas as learning, motivation, psychophysics, sensation, perception, and concept formation. Individual laboratory experience stressed.

*Three lecture, two laboratory hours per week.*

**3101. Psychology of Personality. (3). (311)**

The development, organization, and assessment of the normal person is examined, with an introduction to theories of personality.

**3102. Abnormal Psychology. (3). (312)**

A survey of basic concepts of psychopathology with emphasis on the development of behavior deviations, description of various neurotic and psychotic reactions, and an introduction to methods of psychotherapy.

- 3103. Developmental Psychology. (3). (316)**  
Patterns of intellectual and behavioral development from birth to maturity. Psychological effects of genetic, organic, and environmental influences as the individual matures.
- 3201. Experimental Psychology: Learning. (4). (314)**  
A survey and critical analysis of the theories, concepts, and principles of the acquisition and retention of behavior. **PREREQUISITES:** Psychology 2301 and 2302.  
*Three lecture, two laboratory hours per week.*
- 3301. Industrial and Organizational Psychology. (3). (Formerly 2101)**  
An examination of the application of psychological concepts and methods to phenomena in industrial and organizational settings, with emphasis on personnel selection, classification and evaluation, employee attitudes, morale and motivation, and psychological analysis of the conditions of work.
- 3302. Social Psychology. (3). (Formerly 2102)**  
An analysis of the behavior and experience of individuals in group settings, examining such topics as leadership, social influence, and intergroup and intragroup relations.
- 3303. Thinking and Cognitive Processes. (3).**  
An analysis of the development and modification of thinking, reasoning, conceptualization language and symbolic activity, and other mediational processes in the individual.
- 3304. Psychological Appraisal. (3). (Formerly 4302)**  
An introduction to the development and application of psychological tests, with an emphasis on test construction, standardization, and validation; a survey of commonly used instruments and techniques in the psychological appraisal of the individual.
- 4101. History of Psychology. (3). (411)**  
A comprehensive survey and critical analysis of the philosophical and scientific antecedents of contemporary psychology. **PREREQUISITE:** 10 upper-division hours in psychology.
- 4201. Experimental Psychology: Physiological Processes. (4). (412)**  
A study of the physiological functions involved in behavior and experience. A survey of the physiology of the sense organs, nervous system, and response mechanisms. **PREREQUISITE:** Psychology 3201.  
*Three lecture, two laboratory hours per week.*
- 4202. Experimental Psychology: Comparative Behavior. (4). (418)**  
Detailed study of laws of heredity and interactions of genetic factors and environmental factors on individual and species differences in behavior. A survey of differences between species in processes underlying behavior. **PREREQUISITE:** Psychology 3201.  
*Three lecture, two laboratory hours per week.*
- 4203. Experimental Psychology: Sensation and Perception. (4). (Formerly 2201)**  
Detailed survey of the major senses with emphasis on methods of investigation and behavioral applications. Study of the perceptual processes and influences of learning and motivation on perception. **PREREQUISITE:** Psychology 3201.  
*Three lecture, two laboratory hours per week.*



4501. **Senior Seminar in Psychology.** (3).  
Seminar discussion of current theoretical issues and experimental studies in psychology; open to outstanding advanced students by invitation of the faculty.
4502. **Senior Thesis in Psychology.** (3).  
Supervised individual research on a selected topic in contemporary psychology; open to outstanding advanced students, by invitation of the faculty.

## SECONDARY EDUCATION

PROFESSOR ALBERT FORD HAYNES, JR., *Chairman*  
*Room 424, The College of Education Building*

The Department of Secondary Education offers majors and minors in secondary education; requirements are listed on page 186.

Letters following each subheading are prefixes used by The College of Education.

### EDUCATION (EDUC)

4301. **Audio-Visual Instructional Materials in Education.** (3). (466)  
Introduction to means for effective preparation and utilization of selected multi-media materials. Laboratory practice in operation of audio-visual equipment and development of selected materials and techniques centered around student interests. Emphasis on the implications of audio-visual media for teaching.

### EDUCATIONAL FOUNDATIONS (EDFD)

2011. **Foundations of Educational Thought and Practice.** (3). (203)  
An overview of the whole field of education, with emphasis on those things a prospective teacher should know at the beginning of his professional preparation.
4012. **History of Education in the United States.** (3). (452)  
This course aims to trace, describe, and evaluate the development and growth of educational practices, institutions, and theories in the United States from the colonial period to the present.
4021. **Philosophy of Education.** (3). (453)  
A guide to the philosophical treatment of educational problems, designed to develop in the student some facility in critical and systematic thinking.
4031. **School and Society.** (3). (456)  
Group behavior in the educational process; sociological factors involved in the interaction of pupils, teachers, administrators, and community.
4511. **Educational Tests, Measurements, and Practicum Applications I.** (3).  
The principles underlying the construction of objective tests and the problems relating to the rise and interpretation of school measurements by teachers and administrators; practice in the construction of new type and essay tests, and in the elements of statistical procedure necessary for the interpretation of school measurements. PREREQUISITE: Restricted to selected students.

**4512. Educational Tests, Measurements, and Practicum Applications II. (3).**

The course includes interpretations of reliability and validity; standardization techniques; and applications of instrumentation procedures. The course content will be used in the research practicum. PREREQUISITE: Education 4511, and restricted to selected students.

**4541. Introduction to Educational Statistics and Practicum Applications I. (3).**

This course deals with techniques used in educational research. The course contains the development of skills dealing with mathematical probability, frequency functions, moments, and measures of dispersion. Applications of course content will be coordinated with the research seminar. PREREQUISITE: Restricted to selected students.

**4542. Introduction to Educational Statistics and Practicum Applications II. (3).**

The course includes the use of statistics in research designs, the problem of replicability, and the methodology used in proposing and reporting research. The course will be directed toward the development of competence in statistical applications. PREREQUISITE: Education 4541, and restricted to selected students.

*(The following course, offered in The Graduate School, is open to undergraduates within 36 semester hours of graduation. This course does not carry graduate credit nor is it applicable to any degree offered in The Graduate School.)*

**5511. Measurement and Evaluation. (3). (S-553)**

The principles underlying the construction of objective tests and the problems relating to the use and interpretation of school measurements by teachers and administrators; practice in the construction of new-type and essay tests, and in the elements of statistical procedure necessary for the interpretation of school measurements.

**EDUCATIONAL PSYCHOLOGY (EDPS)****2111. Human Growth and Development. (3). (102)**

An attempt to help the student understand child nature and development, to appreciate the fact that all behavior is caused, and to form the habit of seeking bases for both normal and abnormal behavior in situations at home, at school, and in the community.

**3121. The Psychology of Learning. (3). (201)**

The psychology of learning as applied to activities under the guidance of the school.

**4112. The Psychology of Adolescence. (3). (472)**

A study of the characteristics of adolescence that should be taken into account in the planning and teaching of secondary school courses, in the supervision of extra-class activities, and in guiding and counseling.

**GUIDANCE (GUID)****4611. Introduction to Guidance. (3).**

An introduction to the principles and concepts of guidance as applied to the school; consideration of guidance services as they pertain to the teacher, administrator, and counselor.

**4691. Supervised Practicum in Counseling. (3). (479)**

Classroom instruction and practical experience to prepare upper-classmen to serve as advisers in dormitory situations. PREREQUISITE: Consent of the Dean of Women.

## SECONDARY EDUCATION (SCED)

- \*3321. Materials and Methods in High School Art. (1 or 3). (391A)**
- \*3322. Materials and Methods in High School Music. (1 or 3). (391K)**
- \*3331. Materials and Methods in High School Physical Education. (1 or 3). (391L)**
- \*3332. Materials and Methods in High School Health. (1 or 3). (391Q)**
- 3335. Driver and Traffic Safety Education I. (3).**  
A course designed to meet minimal qualification requirements for teachers of driver education in the secondary schools. A study of materials and methods that may be used in organizing and conducting a Driver Education program in the secondary schools. **PREREQUISITES:** Education 2011, 2111, 3121 and a valid driver's license.
- 3336. Driver and Traffic Safety Education II. (3).**  
Designed to give the student advanced professional preparation to meet the traffic safety education needs of schools and communities. Included is a review of research related to accident causation, teacher preparation, current materials and methods used in organizing and administering a driver and traffic safety education program in a secondary school. **PREREQUISITE:** Secondary Education 3335 or equivalent.
- 3337. Driver and Traffic Safety Education III. (3).**  
A study of innovations and materials used in the teaching of driver and traffic safety education at the secondary level. **PREREQUISITE:** Secondary Education 3336.
- \*3341. Materials and Methods in High School English. (1 or 3). (391D)**
- \*3342. Materials and Methods in High School French. (1 or 3). (391E)**
- \*3343. Materials and Methods in High School German. (1 or 3). (391F)**
- \*3344. Materials and Methods in High School Latin. (1 or 3). (391I)**
- \*3345. Materials and Methods in High School Spanish. (1 or 3). (391O)**
- \*3346. Materials and Methods in High School Speech. (1 or 3). (391P)**
- \*3351. Materials and Methods in High School Mathematics. (1 or 3). (391J)**
- \*3361. Materials and Methods in High School Biology. (1 or 3). (391B)**
- \*3362. Materials and Methods in High School Physical Science. (1 or 3). (391M)**
- \*3371. Materials and Methods in High School Social Studies. (1 or 3). (391N)**

- \*3381. **Materials and Methods in Vocational Business Subjects.** (1 or 3). (391C-a)
- \*3382. **Materials and Methods in Bookkeeping and General Business Subjects.** (1 or 3). (391C-b)
- \*3383. **Materials and Methods in High School Home Economics.** (1 or 3). (391G)
- \*3384. **Materials and Methods in High School Industrial Arts.** (1 or 3). (391H)

\*NOTE: The methods courses in high school subjects include objectives, content, and grade placement of subject; tools of instruction, organization of courses; teaching procedures and practice. A course may be taken for one hour credit (formerly 391W) only if the student has had, or is enrolled in, Education 3301 and is unable to schedule the methods course for three hours credit before graduation. The course, when taken for one hour credit, requires a conference each week with an instructor competent to provide the necessary special instruction. PREREQUISITES for the courses are: Education 2011, 2111, and 3121.

3901. **Special Problems in Instruction.** (1 to 3). (351)  
Individual investigation in the area of instruction. PREREQUISITE: experience as a teacher or satisfactory evidence of being qualified to benefit from such a course.
4306. **Educational Methods for Adult Education.** (3).  
This course places emphasis on trends, instructional and resource materials, and instructional techniques used in adult educational programs.
4344. **The Teaching of Reading in the Secondary Schools.** (3).  
A course designed for teachers of content subjects at the secondary level, exploring methods, materials, and organizational patterns by which reading skills can be developed and improved in the secondary schools.
4441. **Curriculum Problems and Trends in the Secondary School.** (3). (461)  
This course is designed to afford some help in the clarification of secondary school educational purposes and in determination of appropriate learning activities; it deals with the functional teaching objectives, ways of obtaining these objectives, methods of establishing relationships among the school subjects, developing the core curriculum, and the organization and use of units of work.
4701. **Workshop in the Improvement of Instruction.** (1-6). (431)  
This course is designed to assist both in-service and prospective teachers of grades seven through twelve to improve the instruction-learning program. Attention is given to common elements of basic methodology such as purposes of education, classroom learning, motivation of learning. The utilization of appropriate materials and resources, evaluation of teaching and learning, etc. Attention is also given to ways and means of applying these elements of methodology in the particular subject areas of the secondary school.
- \*4841. **Directed Student Teaching in the Secondary School.** (3 to 9). (415)  
Observation of the growth and development of pupils and of methods

of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups.

**\*4842. Directed Student Teaching in the Secondary School. (3 to 6). (416)**

For the student who has completed six semester hours or less of student teaching on the secondary level and desires some additional experience.

*Graduate Courses in Secondary Education: For full details of the graduate program, see The Bulletin of The Graduate School.*

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\*For detailed information concerning the requirements for admission to the student teaching program, see page 176.

# SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR CHARLES NEWTON, *Chairman*  
Room 221-23, Clement Hall

Requirements for the majors and minors in sociology, law enforcement, social welfare, and anthropology are listed on page 159. For information concerning the pre-social welfare curriculum, see page 141.

*IMPORTANT NOTE: Sociology 1111 is a prerequisite for all other courses in sociology.*

*IMPORTANT NOTE: A student may not major in sociology and minor in law enforcement or social welfare; a student may not major in law enforcement and minor in sociology or social welfare; a student may not major in social welfare and minor in sociology or law enforcement.*

## SOCIOLOGY

**1111. Introductory Sociology. (3). (211)**

Nature and significance of interaction and culture; social organization and processes; social and cultural change.

**2112. Contemporary Social Problems. (3). (421)**

Investigation, analysis, and discussion of current social problems.

**2410. The Modern Community. (3). (212)**

The community and its provisions for health, education, recreation, safety, and welfare; recent trends in control and planning.

**2420. The Family. (3). (312)**

The family in social change, the family and personality, family organization, family disorganization and reorganization, families in foreign lands, the future of the American family.

**3311. Social Statistics. (3). (426)**

Statistical and non-statistical approaches employed in contemporary social research, review and analysis of important monograph findings, practical applications derived from recurring social behavior. NOTE: A student who has credit for Law Enforcement 4528 (formerly Sociology 4528) or its equivalent may not receive credit for Sociology 3311.



- 3322. Methods of Social Research (3).**  
An introduction to the selection and formulation of a research problem; the design of the research project, including sampling procedures; the methods of field observation, questionnaire construction, and participant observation techniques; the analysis and interpretation of research data; the preparation of the research report. PREREQUISITE: Sociology 3311.
- 3430. Social Control. (3). (321)**  
The problem of social control, internalizing social control, social structures and institutions in the maintenance of order, improving social control.
- 3440. Social Stratification. (3). (323)**  
Social classes and social status; power, prestige, and social opportunities of the upper, middle, and lower classes; cross-cultural analysis of social stratification; social mobility.
- 3450. Dynamics of Social Change. (3).**  
A sociological analysis of the theory, nature, meaning, and consequences of social change.
- 3510. Sociology of Deviant Behavior. (3).**  
Contemporary theories of deviant behavior; the major types of deviation in American society; the relationship of deviant behavior and social disorganization to social change.
- 3521. Criminology. (3). (411)**  
Theories of causation, crime as a business, affiliated problems, trends in punishment, treatment of offenders, control and prevention.
- 3730. Social Attitudes. (3). (322)**  
Personal and popular attitudes, attitudes and wishes, attitudes as social forces.
- 3811. Social and Ethnic Minorities. (3). (Same as Anthropology 3811).**  
A comparative study of social and ethnic minorities in the United States and elsewhere with a focus on differences in cultural backgrounds, social relationships with the larger society; social, educational, and legal problems; factors contributing to the satisfactory and unsatisfactory adjustments of minorities.
- 3820. Educational Sociology. (3). (416)**  
Sociological analysis of education and its functions; school and community relationships; problems of social change and educational adjustments.
- 3841. Industrial Sociology. (3). (413)**  
Social characteristics of business and industrial organizations; role of the consultant in personnel organization and human relations programs.
- 3860. Sociology of Religion. (3).**  
The role of religion in social systems; reciprocal influence of religion and modern society; sociological analysis of religious organizations and the roles which comprise them; social correlates of religious opinions and attitudes.

**3870. Political Sociology. (3).**

A sociological examination of political institutions: cultural and social factors associated with political structure, political attitudes, and political behavior; political decision-making as a sociological process; a comparative and methodological study of social movements and political parties. **PREREQUISITE:** Sociology 1111 and 2112, or permission of the instructor.

**3871. Public Opinion and Propaganda. (3).**

The nature and development of public opinion with particular consideration of the roles, both actual and potential, of communication and influence.

**4211. Modern Sociological Theories. (3). (422)**

European contributions, American developments, recent trends and influences in sociological theory.

**4222. History of Social Thought. (3). (419)**

Emphasis on the historic sources of social ideas in Western culture in terms of their relevance to contemporary systematic theory.

**4320. Theories of Criminology. (3).**

Major theories of criminology reviewed from various academic approaches to evaluate the meaning of criminal behavior and delinquency.

**4412. Urban Research. (3).**

Extensive exploration of research methods that have proved useful in the study of urban social phenomena; the application, limitations, and advantages of various research approaches. **PREREQUISITE:** Sociology 2410 and senior standing.

**4522. Analysis of Juvenile Delinquency. (3). (420)**

Trends of juvenile delinquency; the development of case study techniques and diagnosis of juvenile delinquency; comparative analysis of various theoretical approaches. **PREREQUISITE:** Sociology 3521.

**4610. Population. (3). (417)**

Population theories and policies; their definition and history. Trends in population growth; methods of population analysis, and trends in fertility and mortality. Emphasis on fertility, mortality, sex and age composition, and migration and their influences on population change.

**4620. Human Ecology. (3). (444)**

Spatial structure and land use patterns of urban, rural, and fringe areas; city growth, its spatial and communicative extension into suburban and rural areas, and its impact on the economy, values, and social organization of communities.

**4710. Social Psychology. (3). (418)**

A study of the social development of the individual and of the underlying sociological and psychological process of human behavior.

**4720. Collective Behavior. (3). (412)**

Emergence of collective behavior, spontaneous collectivities, social movements, social consequences of restrictive collective behavior.

**4812. Race Relations. (3). (445)**

A study of ethnic organization and interrelations with specific emphasis on the status of the Negro in American society, and the process of integration. Emphasis on theoretical explanations of prejudice.

- 4830. Directed Individual Study.** (1 to 4). (499)  
Individually directed advanced reading and/or research in special areas of interest. **PREREQUISITE:** permission of department chairman.
- 4842. Sociology of Occupations and Professions.** (3). (414)  
Sociological analysis of the division of labor, occupational groupings, career patterns, and professional associations in modern American society and the meaning of work.
- 4843. Human Relations in Business.** (Same as Management 4420). (3). (415)  
A study of the principles of human relations as applied to business.
- 4851. Medical Sociology.** (3).  
The contributions of sociology to medicine; the sociology of illness, particularly mental illness; practitioners, patients, and medical settings, particularly the modern hospital; the organization and sociology of the distribution of medical care; the status and the methods of research in medical sociology.

*Graduate Courses in Sociology: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

#### ANTHROPOLOGY

**IMPORTANT NOTE:** *Anthropology 1200 may be taken before Anthropology 1100.*

- 1100. Introduction to Anthropology I.** (3).  
(formerly Introduction to Physical Anthropology)  
Man's place in nature, human origins, the fossil record from archaeological excavations, the biological aspects of race.
- 1200. Introduction to Anthropology II.** (3).  
(formerly Introduction to Cultural Anthropology)  
The origin and development of human culture. Comparative studies of human culture.
- 2211. Survey of Old World Ethnology.** (3).  
Survey of major culture areas in Europe, Asia, Africa, and Oceania, placing these in historic perspective, and studying selected sample peoples in each area.
- 2212. Survey of American Indian Ethnology.** (3).  
Survey of major culture areas of North and South America, placing these in historic perspective, and studying selected sample peoples in each area.
- 2312. Survey of Old World Archeology.** (3). (311)  
(formerly Survey of World Archeology)  
Human origins and culture history from the stone age through the rise of earliest civilization as revealed by comparative study of materials from abandoned occupation sites in Africa, Asia, and Europe. Last two weeks devoted to archeological field techniques pointing toward summer field work.
- 2313. Survey of American Indian Archeology.** (3). (312)  
Theories of ancient human migrations into the New World, development of major culture sequences as revealed by comparative analysis

of materials from abandoned Indian habitations, emphasis on the rise of pre-Columbian civilization in Mesoamerica. Last two weeks devoted to archeological methods.

2321. **Archeological Field Techniques.** (3). (221)  
Experience in field excavations conducted at Chucalissa Museum; preparation of specimens, use of survey instruments, photographing and keeping archeological records, map making of small ground areas. Hours individually arranged for either one or both summer terms. PREREQUISITE: permission of department chairman.
2322. **Archeological Field Techniques.** (3). (221)  
A continuation of Anthropology 2321.
3035. **Indians of the Tennessee Area.** (3).  
A survey of the archeology and ethnology of the Southeast, with intensive study of the various Indian cultures of Tennessee and bordering states.
3065. **The Rise of Anthropological Theories.** (3).  
An introduction to the rise of anthropology as a science. Emphasis on anthropological thinking and theories of the 19th and early 20th century. PREREQUISITES: Anthropology 1100 and 1200 or permission of instructor.
3111. **Physical Anthropology and Human Paleontology.** (3).  
A comparative study of primate anatomy, physiology, and behavior; detailed examination of the Hominid fossil record; and a summation of population genetics and human variability.
3225. **Ethnological Field Techniques.** (3).  
Methods of collecting and interpreting data pertaining to contemporary societies; personal problems involving conflicts in cross-cultural research.
3231. **Ethnology of North America.** (3).  
Description and distribution of aboriginal culture-types of North America north of Mexico; comparisons and inter-relationships during the pre- and post-contact periods. PREREQUISITE: Anthropology 1200 or permission of instructor; Anthropology 1100 is recommended.
3232. **Ethnology of Latin America.** (3).  
Description and distribution of aboriginal culture-types of South and Meso America; comparisons and inter-relationships during the pre- and post-contact periods. PREREQUISITE: Anthropology 1200 or permission of instructor; Anthropology 1100 is recommended.
3242. **Ethnology of Africa.** (3).  
Description and distribution of aboriginal culture-types of Africa; comparisons and inter-relationships during the pre- and post-contact periods. PREREQUISITE: Anthropology 1200 or permission of instructor; Anthropology 1100 is recommended.
3252. **Ethnology of Eurasia.** (3).  
Description and distribution of aboriginal culture-types of Europe, Asia, and India; comparisons and inter-relationships during the pre- and post-contact periods. PREREQUISITE: Anthropology 1200 or permission of instructor. Anthropology 1100 is recommended.

**3272. Ethnology of Oceania. (3).**

Description and distribution of aboriginal culture-types of Oceania (including Australia); comparisons and inter-relationships during the pre- and post-contact periods. PREREQUISITE: Anthropology 1200 or permission of instructor; Anthropology 1100 is recommended.

**3331. Archeology of North America. (3).**

Description and distribution of prehistoric cultural remains in North America north of Mexico. Discussion and comparison of the major regional sequences, extending from the earliest evidences of human occupation until historic times. PREREQUISITE: Anthropology 1200 or permission of instructor; Anthropology 1100 is recommended.

**3332. Archeology of Latin America. (3).**

Description and distribution of prehistoric cultural remains in South and Meso America, with emphasis on the Aztec, Maya, and Inca areas. PREREQUISITE: Anthropology 1200 or permission of instructor; Anthropology 1100 is recommended.

**3342. Archeology of Africa. (3).**

Description and distribution of prehistoric cultural remains in Africa; discussion and comparison of the major regional sequences, extending from the earliest evidences of human occupation until historic times. PREREQUISITE: Anthropology 1200 or permission of instructor; Anthropology 1100 is recommended.

**3351. Archeology of Europe. (3).**

Development of the various European civilizations and their influence and inter-relationships with other cultures throughout Europe and Eurasia. PREREQUISITE: Anthropology 1200 or permission of instructor; Anthropology 1100 is recommended.

**3352. Archeology of Asia. (3).**

Description and distribution of prehistoric cultural remains in Asia; discussion and comparison of the major regional sequences, extending from the earliest evidences of human occupation until historic times. PREREQUISITE: Anthropology 1200 or permission of instructor.

**3381. Archeological Laboratory and Research Techniques. (3).**

Coverage of basic archeological laboratory and research techniques, including processing, cataloguing, storage of specimens, and analysis of a small body of archeological data on an individual basis. PREREQUISITE: Permission of instructor.

**3382. Museum Operation. (3).**

Basic aspects of museum organization, management, exhibit planning and execution, and maintenance of collections and records.

**3411. Anthropological Linguistics. (3).****(325)**

(formerly Mechanics of Communication)

Nature and usefulness of symbols, mechanisms by which they are communicated, relation of symbolic systems to thought and culture, comparative techniques used to reconstruct prehistoric languages.

**3811. Social and Ethnic Minorities. (3).**

(Same as Sociology 3811).

A comparative study of social and ethnic minorities in the United States and elsewhere with a focus on differences in cultural back-



grounds, social relationships with the larger society; social, educational, and legal problems; factors contributing to satisfactory and unsatisfactory adjustments of minorities.

**4065. Contemporary Anthropological Theory. (3).**

Contemporary growth of theories and methods in anthropology. **PREREQUISITES:** Anthropology 1100, 1200, and 3065; or permission of instructor.

**4250. Complex Societies. (3).**

Folk society, peasant society, and the pre-industrial state. Community studies. Anthropological studies of social institutions and groupings in industrial settings. **PREREQUISITE:** Anthropology 1200 or permission of instructor.

**4251. Social Structures of Non-Literate Societies. (3).**

Comparative analysis of social structures and their functional relationships to other cultural institutions, with emphasis on family types, marriage patterns, and kinship. **PREREQUISITE:** Anthropology 1200 and at least one survey or area course in ethnology; or permission of instructor.

**4252. Economic Systems of Non-Literate Societies. (3).**

Comparative analysis of economic systems and their functional relationships to other cultural institutions; production, distribution, and consumption in non-literate groups; concepts of wealth, value, property, and ownership. **PREREQUISITE:** Anthropology 1200 and at least one survey or area course in ethnology; or permission of instructor.

**4253. Religious Systems in Non-Literate Societies. (3).**

Comparative analysis of religious systems and their functional relationships to other cultural institutions; inter-relations of myth, magic, and ritual; types of religious institutions and religious practitioners. **PREREQUISITE:** Anthropology 1200 or permission of instructor.

**4254. Cultural Change in Non-Literate Society. (3).**

Internal and external factors causing change in the small-scale society; theories of cultural evolution; social changes involved in the emergence of civilization; changes involved in industrialization. **PREREQUISITE:** Anthropology 1200 or permission of instructor.

**4255. Political Systems in Non-Literate Societies. (3).**

Comparative analysis of political systems and their functional relationships to other cultural institutions; formation and segmentation of political structures; requisites of leadership and political control. **PREREQUISITE:** Anthropology 1200 or permission of instructor.

**4325. Archeological Field Control. (3).**

Methods of dealing with archeological field problems; individual instruction in collection, recording, and field analysis of archaeological data. **PREREQUISITE:** Anthropology 2321 and 2322, or permission of department chairman.

**4724. Primitive Technology. (3).**

An anthropological survey of the development of technology. Analysis of the origins of primitive techniques, subsistence patterns, arts, crafts, machines, and tracing of their relationship to social organizations. A comparative examination of prehistoric and historic information. **PREREQUISITE:** Anthropology 1200 or permission of instructor.

**4751. Culture and Personality in Non-Literate Society. (3).**

Comparison of factors involved in the analysis of personality as contrasted to culture; the interaction of these factors; problems of studying, personality cross-culturally. **PREREQUISITE:** Anthropology 1200 or permission of instructor.

**4752. Applied Anthropology. (3).**

Application of anthropological knowledge and techniques to contemporary problems in government, industry, public health, and colonial and native administration. Emphasis on, but not limited to, contacts between industrial and non-industrial societies. **PREREQUISITE:** Anthropology 1200 or permission of instructor.

**4975. Directed Individual Readings. (1-3).**

Intensive guided survey of anthropological and related literature dealing with topics selected by advanced students and accepted by the staff. Compilation, synthesis, and evaluation of the published data; preparation for graduate level work, for students considering anthropology as a profession. Enrollment limited to anthropology majors and minors. **PREREQUISITE:** Permission of staff.

**4985. Directed Individual Research. (1-3).**

Intensive guided study of original data, in areas selected by advanced students and accepted by the staff. Collection and/or processing of data in physical anthropology, ethnology, archeology, and linguistics; description, classification, analysis, and synthesis. Preparation for publication. Enrollment limited to anthropology majors and minors. **PREREQUISITE:** Permission of staff.

**4995. Senior Seminar in Anthropology. (3).**

Problems in contemporary anthropology; may be offered in sections dealing with different topics; field trips and individual assignments.

## SOCIAL WELFARE

**2911. Introduction to Social Welfare. (3). (423)**

History and philosophy of social welfare in the United States, purposes and obstacles to social improvement, functions of public and private social service programs, qualifications and opportunities for social work practice.

**2921. Contemporary Social Welfare Practice. (3).**

Survey of the field of social welfare; detailed study of agency records in family- and children-focused social work, hospital social work, public welfare, psychiatric, and medical social work, social group work; introduction to methods; visits to clients along with practicing social workers. **PREREQUISITE:** Social Welfare 2911.

**3911. The Contemporary Social Agency. (3).**

The structure and organization of modern social welfare; Memphis and Shelby County Social Agencies; Health and Welfare Planning Council; Memphis and Shelby County Health Council; Shelby United Neighbors; roles of supervisor and worker; agency visits and visiting lecturers. **PREREQUISITE:** Social Welfare 2911.

**3912. Methods of Social Work. (3). (424)**

Theory and practice in social work; social casework, social group work, the interview, analysis of case records, field observation in local social agencies. **PREREQUISITE:** Social Welfare 2911.

**3923. Interviewing in Social Welfare. (3).**

Purposes and types of interviews; distinctive use of interviewing in social welfare; practice in interviewing; use of tapes, role-playing, intake opportunities in certain agencies; practice and criticism in record-writing; analysis of case records. PREREQUISITE: Social Welfare 2911.

**4830. Social Welfare Field Work. (1-3).**

Supervised field work experience in case work, group work, anti-poverty agencies; concomitant seminar once weekly. Seminar two hours weekly; field placement, one-half day. PREREQUISITES: Social Welfare 2911 and 3912 and permission of Director, Division of Social Welfare.

**4931. Social Welfare and Social Change. (3).**

Principles of social change; the sociology of social action and pressure groups; orientation to groups espousing social change; class lectures by visiting community organizers. PREREQUISITE: Social Welfare 2911.

**4932. Social Group Work and Recreation Leadership. (3).**

The group as man's basic association; the individual in the group; group structures and functioning; observation and recording of activity groups; role of the worker; operations of group workers; field experiences in recreation agencies and athletic programs. PREREQUISITE: Social Welfare 2911.

**LAW ENFORCEMENT**

**1520. Introduction to Law Enforcement. (3).**

An introduction to the profession of law enforcement and police science, tracing the development of law enforcement from early English beginnings to the present time, dealing with criminal behavior, criminal law, and the role of the police in modern society.

**4523. Techniques of Criminal Investigation. (3).**

A description, analysis, and demonstration of historical and contemporary techniques and procedures utilized in the apprehension of the criminal.

**4524. Penology. (3).**

The historical and contemporary analysis of penal systems and reformatories in terms of organization, procedures, programs, and effectiveness.

**4525. Probation and Parole. (3).**

The analysis of various release procedures and their effectiveness from an historical, philosophical, and sociological point of view.

**4526. Police Administration. (3).**

A comparative analysis of the problems, procedures, organization, and functions of effective police organization.

**4527. Law Enforcement and the Criminal Law (3).**

The analysis of those aspects of police and law enforcement procedures and techniques as these apply to local, state, and federal criminal statutes.

**4528. Research and Statistics for Law Enforcement. (3).**

Statistical and non-statistical approaches employed in contemporary law enforcement; review and analysis of current findings; practical

applications derived from recurring deviant behavior. *NOTE: A student who has credit for Sociology 3311 or its equivalent may not receive credit for Law Enforcement 4528 (formerly Sociology 4528).*

**4530. Police Planning. (3).**

An advanced study and analysis of plans relating to procedures, tactics, personnel, equipment, buildings, budget, and extra-departmental activities which the police administration encounters.

**4531. Public Relations and the Police. (3).**

The role of law enforcement personnel and administrators in police-community relations; the forms and possible approaches for improving communications with the public; the role of the police officer in the improvement of the public image.

## SPECIAL EDUCATION

PROFESSOR DESMOND PHILLIPS, *Chairman*  
Room 401, The College of Education Building

Requirements for the major and minor are listed on page 186.

The prefix used by The College of Education for courses in Special Education is SPED.

**4000. Introduction to Exceptional Children. (3).**  
(formerly 4151)

A survey course with an overview of the field of special education, including the historical perspective of the field. Emphasis is placed on the characteristics and education of children and youth in each area of exceptionality.

**4201. Introduction to the Education of Children With Emotional Problems. (3).**  
(formerly 4141)

A course designed to explore historical developments and current practices in the identification and treatment of children with emotional problems. Emphasis is placed upon the educational phase of treatment, including the characteristics of children, role of the teacher, and curricula planning.

**4501. Nature of Mental Retardation. (3).**  
(formerly 4163)

To include etiology, definitions, and a comprehensive knowledge of the nature and needs of the mentally retarded. The multiplicity of implications of mental retardation as they relate to impairment in growth, maturation, and learning, and the impact of these deficits on the individual, on his family, and on society.

**4510. Materials and Methods of Teaching Pre-Academic Skills and Concepts to the Mentally Retarded. (3).**

Knowledge and familiarity with instructional materials and methods needed for the education of retarded children at the pre-academic level will be included. Development of pedagogical materials, as well as the development and use of an evaluative instrument, will be stressed. Practice in prescriptive teaching will be included. **PREREQUISITES:** Special Education 4001, 4501,



**4521. Curriculum for the Educable Mentally Retarded. (3).**

Emphasis on information and skills conducive to the development, organization, pedagogy, and evaluation of a curriculum for mentally retarded children and adults at all levels of instruction and ability. Basic goals, objectives, modifications, and evaluations of curricula will be stressed. Curriculum as a dynamic, sequential, flexible process will be emphasized.

**4531. Working with Parents of Exceptional Children. (3).**

This course is designed to teach the techniques which an educator might use in communicating with parents of exceptional children. It covers various means of interpreting school programs and handicapping conditions to parents in order to get maximum home reinforcement of the attitudes, skills and knowledge taught in school.

**4541. Student Teaching With Primary and Intermediate Level Educable Mentally Retarded Children. (6). (formerly 4881)**

Orientation, observation, and teaching with mentally retarded students.

**4542. Student Teaching with Secondary Level Educable Mentally Retarded Children. (3). (formerly 4881)**

Orientation, observation, and teaching with mentally retarded students.

**5512. Materials and Methods of Teaching the Mentally Retarded at the Primary and Intermediate Levels. (3).**

Knowledge and familiarity with instructional materials and methods applicable to the special educational needs of the mentally retarded at the primary and intermediate levels will be emphasized. Instructional materials will be developed and an academic inventory, as well as other evaluative instruments, will be used as a basis for the prescription of pedagogical procedures to be used with retarded individuals. **PREREQUISITES:** Special Education 4001, 4501.

**5513. Programming for the Mentally Retarded at the Secondary Level. (3). (formerly 4165)**

Knowledge and familiarity with instructional materials and methods applicable to the special education needs of retarded youth and adults at the secondary level of instruction will be emphasized. A functional academic inventory will be developed. Students will be oriented to the work-study program for the retarded and the role of vocational rehabilitation and the secondary school program for the retarded will be included. **PREREQUISITES:** Special Education 4001, 4501.

**5516. Programming for Trainable Mentally Retarded Children. (3).**

This course covers diagnosis, classification, development of teaching materials, and techniques as well as working with community organizations in relation to public school, private school, community center or institutional program for trainable mentally retarded children.

**5546. Student Teaching with Trainable Mentally Retarded. (3 to 9).**

Orientation, observation, and teaching with trainable mentally retarded pupils. **PREREQUISITE:** Special Education 4151, 4163, and 4166.

*Graduate Courses in Special Education: see The Bulletin of The Graduate School.*



# SPEECH AND DRAMA

PROFESSOR MICHAEL OSBORN, *Acting Chairman*

*Room 143, Speech and Drama Building*

The Department of Speech and Drama offers majors in general speech; oral communication; radio-television-film; speech pathology and audiology; and theatre and oral interpretation; the requirements for these majors and for the minor are listed on page 160.

Through its affiliation with the Memphis Speech and Hearing Center and television station WKNO, the University is able to offer its students the facilities of these institutions; members of the staff of the Speech and Hearing Center and WKNO teach courses on the campus in speech pathology, audiology, radio-television-film.

NOTE: Students may take speech and drama laboratory courses (viz., 3301, 3401, 3501, and 3801) as often as advisers will allow. None of these courses may be repeated for the purpose of improving the grade originally given.

**1211. Voice and Diction. (3). (121)**

Principles of effective voice usage. Emphasis on improving voice characteristics and diction.

**1311. Basic Principles of Public Speaking. (3). (111)**

Adjustment to the speaking situation with emphasis on research, analysis, speech organization, and effective voice usage.

**1411. Basic Oral Interpretation. (3).**

Development of the voice as an instrument of expression. Study of basic interpretative material.

**1551. Introduction to Theatre. (3). (150)**

A consideration of all the dramatic elements of the theatre from the viewpoint of the audience, designed to enhance and improve the student's appreciation of theatrical performances.

**1781. Introduction to Oral Communication. (3).**

Principles underlying all forms of spoken discourse; survey of careers in oral communication.

## THEATRE

**2501. Stage Movement I. (2).**

Basic stage movement. Development of the body as an instrument of expression.

**2502. Stage Movement I. (2).**

A continuation of speech 2501. PREREQUISITE: Speech 2501.

**2511. Stagecraft I. (3).**

(251)

A lecture-laboratory course covering basic elements of scenery construction, painting, and stage properties.

**2512. Stagecraft I. (3).**

A continuation of Speech 2511. Standard and special practices in construction and painting techniques for the preparation of scenery, including ground plans, working drawings, front and rear elevations. PREREQUISITE: Speech 2511.

2531. **Acting I. (3).** (253)  
Introduction to the craft of acting. Elementary techniques and principles of the actor's art.
2532. **Acting I. (3).**  
A continuation of Speech 2531.
2541. **Stage Make-up. (2).**  
Fundamentals of straight and character make-up. The application of the principles governing line, color, and light and shade to make-up problems. Practical experience in make-up through various productions.  
*One lecture, two laboratory hours per week.*
3501. **Theatre Laboratory. (1).** (300-1)  
Participation in technical production activities. One hour credit each semester for three hours of supervised laboratory work per week. (See note on page 344).
3502. **Stage Movement II. (2).**  
Movement studies of the body in developing impulses to rhythm and melodic patterns. PREREQUISITE: Speech 2502.
3503. **Stage Movement II. (2).**  
A continuation of Speech 3502. PREREQUISITE: Speech 3502.
3511. **Stagecraft II. (3).**  
Advanced studies of the scene technician's craft with emphasis on the creative use of modern materials and construction methods. PREREQUISITE: Speech 2512.
3512. **Stagecraft II. (3).**  
A continuation of Speech 3511. PREREQUISITE: Speech 3511.
3521. **Directing I. (3).** (352)  
Study of script analysis and directing principles.
3522. **Directing I. (3).**  
A continuation of Speech 3521. Students direct short plays for performance. PREREQUISITE: Speech 3521.
3531. **Acting II. (3).** (353)  
The development of acting styles. Practice in scenes from period plays.
3532. **Acting II. (3).**  
A continuation of Speech 3531. PREREQUISITE: Speech 3531.
3551. **History of the Theatre. (3).** (354)  
A history and survey of drama from Aeschylus to Turgenev.
3552. **History of the Theatre. (3).** (355)  
A history and survey of drama from Ibsen to Ionesco.
3561. **Theatrical Design I. (3).** (351)  
Fundamentals of technical drawing and rendering for the theatre.
3562. **Theatrical Design I. (3).**  
A continuation of Speech 3561. Historical styles in theatre design. PREREQUISITE: Speech 3561.

**4011. Performance and Production I. (3-9).**

Supervised work in actual university, community or professional theatre productions on an internship basis. Credit varies with amount of time and responsibility involved. May be repeated for a maximum of 18 semester hours of credit.

**4501. Stage Movement III. (2).**

A study of basic mime and pantomime techniques. PREREQUISITE: Speech 3503.

**4502. Stage Movement III. (2).**

A continuation of Speech 4501. Advanced mime and pantomime techniques. PREREQUISITE: Speech 4501.

**4511. Stage Lighting I. (3).**

(452)

Study of elementary electricity and basic stage lighting techniques.

**4512. Stage Lighting I. (3).**

A continuation of Speech 4511. Advanced theatre lighting design and execution. PREREQUISITE: Speech 4511.

**4531. Acting III. (3).**

Acting problems with continued work in acting styles. Term length assignments to scenes designed to develop ensemble acting. PREREQUISITE: Speech 3532.

**4532. Acting III. (3).**

A continuation of Speech 4531.

**4551. Theatre History. (3).**

Special problems in theatre history: the men and ideas which have shaped the theatre of the western world from antiquity to the present.

**4561. Stage Costuming I. (3).**

(451)

Study of basic costuming techniques.

**4562. Stage Costuming I. (3).**

A continuation of Speech 4561. Survey of historic dress and the planning and rendering of costume designs. PREREQUISITE: Speech 4561.

**4563. Theatrical Design II. (3).**

Advanced study of theatre design principles. PREREQUISITE: Speech 3562.

**4564. Theatrical Design II. (3).**

Advanced technical drawing and rendering for the theatre. PREREQUISITE: Speech 4563.

**4571. Playwriting. (3).**

(457)

A study of the theory and principles of writing plays for the stage. Practice in writing either the short or long play.

**4581. Dramatic Theory and Criticism. (3).**

The major documents in dramatic theory and criticism from Aristotle to the present.

**4591. Theatre Management. (3).**

A study of basic boxoffice and publicity procedures for the theatre.

## ORAL INTERPRETATION

2411. **The Art of Oral Interpretation.** (3). (245)  
A continuation of Speech 1411, with emphasis on more complex analysis and performance of the forms of literature.
2412. **Advanced Oral Interpretation.** (3).  
A study of voice in developing impulses and responses to rhythm and melodic patterns in literature. PREREQUISITE: Speech 2411.
3401. **Oral Interpretation Laboratory.** (1). (300-3)  
Preparation for and participation in theatre and oral interpretation activities, including experiments in individual and group forms such as the recital program and Readers Theatre. One hour credit each semester for three hours of supervised laboratory work per week. (See note on page 344).
3451. **Interpreter's Theatre.** (3). (346)  
Oral performance of prose fiction and narrative poetry.
4421. **Interpretation of Poetry.** (3).  
Studies in the style and structure of poetry of specific types and periods, as related to the response and performance of the oral interpreter. PREREQUISITE: Speech 2411.
4431. **Interpretation of Prose.** (3).  
Studies in the oral interpretation of prose fiction, with attention to various literary styles and structures. PREREQUISITE: Speech 2411.
4441. **Interpretation of Drama.** (3). (445)  
Oral performance of scenes from classical and modern drama.
4451. **Interpretation of Shakespeare.** (3).  
Studies in the oral presentation of scenes from selected comedies, histories, and tragedies, with exploration of character and dramatic structure.

## ORAL COMMUNICATION

2311. **Speech Composition.** (3).  
(formerly Public Speaking)  
Designed to improve understanding and skill in speech fundamentals with special attention to the effective oral use of language. Practice in speeches for special occasions and manuscript speaking. PREREQUISITE: Speech 1311 or permission of the instructor.
2321. **Argumentation and Debate.** (3). (231)  
The principles of argumentation, analysis, evidence, and the organization of the argumentative discourse.
2331. **Parliamentary Procedure and Group Leadership.** (3). (232)  
The study of the development of rules of conduct for deliberative bodies; practice and criticism in the use of parliamentary procedure; techniques of group leadership with special emphasis on clubs and small organizations.
3011. **Advanced Business and Professional Speech.** (3).  
Study of communication problems occurring within business and industry as well as between business and the community.

3301. **Forensics Laboratory.** (1). (300-2)  
Organized preparation for and participation in competitive speech activities including debate, discussion, original oratory, extemporaneous speaking, oral interpretation, and after-dinner speaking. One hour credit each semester for three hours of supervised laboratory work per week. (See note on page 344).
3311. **The Process of Oral Communication.** (3).  
(formerly Advanced Public Speaking).  
Exploration of the relationship among source, message, channel, and destination during oral communication; symbolization, attention, perception, retention, and response as each affects oral communication.
3341. **Discussion.** (3). (331)  
Study and practice of the principles and techniques of discussion, dealing with current problems of wide interest and significance.
3371. **Freedom and Responsibility of Speech.** (3).  
The development of freedom of speech as a Western value and the attendant problems of ethical practice, limitations, and responsibility.
4101. **Contemporary Theories of Language.** (3).  
An examination of the influence of language upon behavior, the limitations of language as a communicative system, and the relationship between language and thought.
4341. **Advanced Discussion.** (3).  
Advanced theory in the logical, psychological, and sociological investigation of issues in small groups. PREREQUISITE: Speech 3341.
4351. **Persuasion.** (3). (433)  
Advanced theory of the psychology of speech, investigation of audience motivation, the theory of persuasive techniques, and practical application of all of these.
4361. **History and Criticism of British Public Address.** (3).  
A study and analysis of British speakers and speaking from the 16th century to the present time. Emphasis will be placed on the speech situation, audience, issues and speakers. Such men as Fox, Pitt, Sheridan, Burke, Disraeli, and Churchill will be considered.
4362. **History and Criticism of American Public Address.** (3).  
An analysis of political, religious and social speaking from colonial times to the present. Such men as Clay, Emerson, Lincoln, Webster, and the Roosevelts will be considered.
4365. **The Tradition of Southern Oratory.** (3).  
Notable speakers of the South, the rhetorical characteristics of political campaigns and movements, and the impact of different forms of speech-making upon the Southern social structure.
4366. **Undergraduate Seminar in Oral Communication.** (3).  
Stresses individual work, preparation of papers and reports, and extensive class discussion; topics vary from semester to semester. May be repeated up to six hours.
4371. **Critical Analysis of Oral Communication.** (3). (435)  
(formerly Speech Criticism).  
Problems in the theory and criticism of classical and modern rhetorical



works; application of the principles of rhetoric to the critical evaluations of current public speaking practice.

## RADIO-TELEVISION-FILM

**2821. Radio Production. (3).**

A study of the writing, performance, and production theories and techniques necessary in radio station operations. The student will write, perform, and/or produce programs on the University radio station. **PREREQUISITE:** Journalism 1011.

**3801. Radio-Television-Film Laboratory. (1). (300-4)**

Preparation for and participation in all phases of radio-television-film. **PREREQUISITE:** Permission of instructor (see note on page 344).

**3821. Advanced Radio Production. (3).**

Advanced training in radio production with emphasis on the applications of sound in broadcasting. Production of live and recorded commercials, and documentary, drama, and special events programs. **PREREQUISITE:** Speech 2821.

**3841. Television Production I. (3). (381)**

The elements of television production techniques including camera, audio, lighting, staging, graphics, and on-camera appearance. Practical experience of class production of television programs. **PREREQUISITE:** Speech 2821.

**3842. Television Production II. (3). (382)**

Advanced techniques of television production including the producing and directing of television programs. **PREREQUISITE:** Speech 3841, or permission of the instructor.

**3851. Radio-Television-Film Performance. (3). (383)**

Problems of the media performer; adaptations in composition and interpretation which the medium requires of the announcer, narrator, master of ceremonies, and actor. Performance situations designed to aid in the development of performance skills. **PREREQUISITE:** Journalism 1011, or permission of instructor.

**3861. Radio-Television-Film Dramatic Writing. (3).**

Study and practice in writing unit programs in dramatic form, including adaptations, documentaries, and original plays. **PREREQUISITE:** Speech 3841 or permission of instructor.

**3891. History and Significance of Film. (3).**

The principles of cinematic art. Study of the development of the motion picture, with special attention to critical evaluation of the medium. Presentation of selected films. **PREREQUISITE:** Journalism 1011.

**4801. Directed Studies in Radio-Television-Film. (3).**

Projects of production or research in areas of special interest. **PREREQUISITE:** permission of director of broadcasting.

**4811. Radio and Television Programming. (3).**

The analysis and planning of radio and television station programming structures and schedules. The role of programming in broadcasting, factors that affect programming, general concepts of station programming. **PREREQUISITE:** Speech 3841.

- 4831. Radio and Television Sales and Advertising. (3).**  
The relation of radio and television advertising to the station, network, and station representative; the role of sponsors, agencies, and allied groups. PREREQUISITE: Speech 3841.
- 4871. Radio and Television Station Management. (3).**  
Theories of management; study and analysis of the special problems and situations confronting the manager of a broadcasting station, including personnel, operations, government regulations, programming, and sales. PREREQUISITE: Speech 4811.
- 4891. Techniques of Film. (3).**  
Study and evaluation of past and present approaches in the techniques of editing, camera angles, composition and continuity. Students will also create and produce short films. PREREQUISITE: Journalism 3340 or Speech 3891.
- 4892. Film Production. (3).**  
Workshop for making films. PREREQUISITE: Speech 4891.

#### PATHOLOGY AND AUDIOLOGY

*The first three courses are prerequisite to all other courses in speech pathology and audiology.*

- 2611. Phonetics. (3). (261)**  
Knowledge and practice in the use of the International Phonetic Alphabet; consideration of the physiology of the ear and vocal mechanism.
- 2621. Principles and Methods of Speech Correction. (3). (262)**  
An introduction to the principles and methods of correcting speech and hearing disorders, with scheduled observations and demonstrations at the Memphis Speech and Hearing Center.
- 2631. Audiology. (3). (263)**  
An introductory course dealing with the theory and technique practiced in audiometry and speech reading.
- 3601. Clinical Speech and Hearing Practicum. (1).**  
Supervised experience in the evaluation and treatment of children and adults with communicative handicaps. Conducted in the Memphis State University Speech and Hearing Clinic, the Memphis Speech and Hearing Center, and other community agencies.
- 3602. Clinical Speech and Hearing Practicum. (1).**  
A continuation of Speech 3601.
- 3603. Clinical Speech and Hearing Practicum. (1).**  
A continuation of Speech 3602.
- 3604. Clinical Speech and Hearing Practicum. (1).**  
A continuation of Speech 3603.
- 3631. Auditory Training and Speech Reading. (3). (364)**  
Evaluation of hearing losses by means of speech audiometry; methods in auditory training; methods in lip-reading training.
- 3641. Communication: Anatomy and Physiology. (3). (361)**  
An introduction to the anatomy and physiology of the hearing and vocal mechanism with attention to pathology affecting speech and voice.

**3651. Functional Speech Disorders. (3).**

A detailed study of the techniques and methods of correcting speech disorders which frequently have no organic basis. Those disorders emphasized most are stuttering, delayed speech, and poor articulation. Observations in the Memphis Speech and Hearing Center.

**3661. Organic Speech Disorders. (3). (363)**

A detailed study of the techniques and methods of correcting speech disorders of organic origin. The disorders most emphasized are cleft palate, aphasia, voice problems, cerebral palsy, and language disorders. Experience in the MSU Speech and Hearing Center. PREREQUISITES: Speech 3641.

**3681. Management of the Pre-School Deaf Child. (3).**

A study of the language development of the normal and hearing handicapped child with emphasis on prelinguistic utterances of infancy, language comprehension, and the role of gesture language. Study of the effects of a hearing impairment upon the mental, social, and emotional development of the pre-school child. PREREQUISITE: Speech 3631.

**4631. Audiometric Instrumentation. (3).**

A detailed study of the special problems of audiometric construction, instrumentation and methods of evaluating equipment. Special attention will be given to the purposes of audiometers, hearing aids, and testing rooms in audiometric instrumentation. PREREQUISITE: permission of instructor.

**4632. Advanced Audiology. (3).**

A thorough study of clinical tests in audiology which include pre- and post-operative techniques, electrodermal audiometry, electro-encephalographic audiometry, and automatic audiometry. Special attention will also be given to neurologic implications in audiology and to the theory and testing in advanced audiological evaluation. PREREQUISITE: permission of instructor.

**4671. Speech Pathology. (3).**

Steps involved in the differential diagnosis of speech disorders, establishing etiology, and planning a corrective program. Experience in the MSU Speech and Hearing Center. The contributions of surgery, medicine, psychology, and other related disciplines. PREREQUISITE: nine semester hours in speech pathology courses.

## SPEECH EDUCATION

**2911. Speech for the Elementary Classroom Teacher. (3).**

A course designed to improve the speech of teachers. Emphasis is on voice and diction, classroom speaking, and oral interpretation of literature.

**4921. Play Production for Secondary Schools. (3). (492)**

A survey of the problems of the play director in high school. The course considers: choosing the play, casting, directing, technical aspects of production; then relates these items to the student, the school, and the community.

**4922. Directing the Forensics Program. (3). (493)**

Designed for the teacher charged with the responsibility of developing and directing interscholastic or intercollegiate competitive speech programs; the study of the historical background for such programs,

organizing techniques, recruiting, tournament direction, and other related concerns.

*Graduate courses in Speech and Drama: For course descriptions and further details of the graduate program, see The Bulletin of The Graduate School.*

## TECHNOLOGY

ASSOCIATE PROFESSOR W. T. BROOKS, *Director*  
Room 100, Technology Building

The requirements for the B.S. in Technology are listed on pages 193 to 198.

### ARCHITECTURAL TECHNOLOGY

1551. **Architectural Design. (3).**  
A survey of contemporary architectural theory, its development and practice.
1552. **Introduction to Architecture. (3).**  
Drawing methods as applied to architectural practices.
1553. **Architectural Graphics. (3).**  
Fundamentals of graphic representation, designed to develop abilities in the theories of projection.
1554. **Architectural Graphics. (3).**  
Fundamentals of graphics representation; techniques and materials of freehand drawing.
2550. **Architectural Design. (4).**  
Principles of spatial composition and structural organization, incorporating concepts of the scale and movement of man in space.
2552. **Architectural Design. (4).**  
Continuation of Technology 2550; approaches to architectural design through the analysis of design determinates relating man to his environment.
2553. **Architectural Graphics. (2).**  
Theory and techniques of architectural perspectives.
2554. **Architectural Graphics. (2).**  
Continuation of Technology 2553 with emphasis on watercolor and applied media.
2555. **Architectural Drawing I. (3).**  
Planning and executing residential preliminary and working drawings, details, and specifications. PREREQUISITE: Technology 1511.
3471. **Structural Design. (3).**  
Design of commercial and residential buildings with emphasis on uses of steel, wood and masonry. PREREQUISITE: Technology 3401.
3520. **Architectural Drawing II. (3).**  
Architectural and structural drafting related to commercial and industrial buildings; site planning. PREREQUISITE: Technology 2555.

**3521. Architectural Model Making. (3).**

Continuation of Technology 2555, including pictorial representations, model building and furnishings design. PREREQUISITE: Technology 3520.

**3531. Mechanical Equipment in Construction I. (3).**

Studies of electrical and thermal services for commercial and residential structures. PREREQUISITE: Technology 3520.

**3532. Mechanical Equipment in Construction II. (3).**

Continuation of Technology 3531, with emphasis on the sanitary, water services, etc. for commercial and residential structures. PREREQUISITE: Technology 3531.

**4515. Architectural Drawing III. (3).**

Planning and developing a complete set of working drawings for a commercial building, including architectural and structural details. PREREQUISITE: Technology 3520.

## CONSTRUCTION TECHNOLOGY

**1451. Introduction to Surveying. (3).**

Surveying practices, calculations, and use of topographical conventions. PREREQUISITES: Technology 1411 and Mathematics 1212.

**2451. Construction Surveying. (3).**

Study of construction layout and site locations. PREREQUISITE: Technology 1451.

**2591. Topographical Drafting and Surveying. (3).**

Study of surveying and drafting conventions as used by the civil engineer. PREREQUISITE: Technology 2451.

**3431. Masonry Products. (3).**

Study of cements, concrete, stone, and clay building materials. PREREQUISITE: Technology 3411.

**3451. Route Surveying. (3).**

Study of surveying practices as applied to streets, roads, and highways. PREREQUISITE: Technology 2451.

**3491. Estimating. (3).**

Study and practice of specifications, bidding procedures, and estimating. PREREQUISITE: Technology 2555.

**4520. Building Construction. (3).**

The study of building construction through lecture and trips to local construction job sites; on the job observation of building projects to learn and understand the methods of construction. Classroom analysis and individual research will be employed as a prime vehicle of instruction. PREREQUISITES: Technology 2555 and 3401.

## DRAFTING AND DESIGN TECHNOLOGY

**1421. Interpretation of Technical Drawing. (3).**

Various types of drawings as techniques of communication.

**1511. Graphics I. (3).**

An introductory course in graphic representation and presentation.



Basic exercises in lettering, use of the instruments, sketching, geometric construction and projections are offered; however problem solving is stressed.

**1521. Graphics II. (3).**

A continuation of Technology 1511 to include working drawing, details, assemblies and pictorials. Shades and shadows are also considered. PREREQUISITE: Technology 1511.

**2511. Descriptive Geometry. (3).**

A study of points, lines and planes in space with emphasis on application to problems of a technological nature. PREREQUISITE: Technology 1511.

**2531. Sheet Metal Drafting. (3).**

Theory and application of principles of lofting, including parallel line, radial, and triangulation methods of development. PREREQUISITE: Technology 2511.

**3571. Machine Design. (3).**

A study of the design of basic machine elements, subassemblies and assemblies. PREREQUISITES: Mathematics 1212 and Technology 2511.

**3572. Technical Illustration. (3).**

A course dealing with the basic techniques of illustration as applied to industrial visual communication. PREREQUISITES: Technology 1521 and 2511.

**3573. Mechanical Design. (3).**

A basic consideration of mechanisms, kinematics, linkages, cams, and gears. PREREQUISITE: Technology 2511.

**3575. Structural Steel Detailing. (3).**

A study of A.I.S.C. riveted and welded fabrication design. PREREQUISITES: Mathematics 1212, Technology 2511 and 3401.

**3591. Tool Design. (3).**

A course concerned with the design and application of jigs, fixtures and dies. PREREQUISITES: Mathematics 1212 and Technology 2511 and 3401.

**4511. Design Problems. (3).**

A consideration of advanced drafting room practices. PREREQUISITES: Mathematics 1321 and 12 semester hours of drafting and design courses.

ELECTRONICS TECHNOLOGY

**1811. Electronics Technology I. (3).**

Survey of Direct and Alternating Current fundamentals with laboratory emphasis on basic electrical measurements and the proper use of instruments. PREREQUISITE: Concurrent enrollment in Mathematics 1212 desirable.

**1821. Electronics Technology II. (3).**

Circuit analysis methods in modern electronics technology. Laboratory confirmation of mathematical solutions to problems involving Direct and Alternating Currents. PREREQUISITES: Technology 1811 and Mathematics 1212.

**2821. Electronics Technology III. (3).**

Theory of electron tubes and their applications in power supplies, amplifiers and oscillators. PREREQUISITES: Technology 1821 and concurrent enrollment in Technology 2831.

**2831. Electronics Technology IV. (3).**

Theory of semiconductor devices and their applications. Both discrete component solid state circuits and monolithic circuits are compared and contrasted with similar electron tube circuits. PREREQUISITES: Technology 1821 and concurrent enrollment in Technology 2821.

**3811. Electronics Communications. (3).**

Principles of modulation and demodulation are examined in depth, together with associated radio transmitter and receiver circuitry, telephony applications and electronic navigational aids. PREREQUISITES: Technology 2821 and 2831.

**3821. Industrial Electronics. (3).**

Study of electronics in modern industry, with emphasis on motor controls, high frequency heating devices and electronic instrumentation. PREREQUISITES: Technology 2821 and 2831.

**3841. Advanced Applied Electricity. (3).**

The generation and utilization of single and polyphase electrical power in home and industry; DC and AC generators, motors, regulators and meters in both individual and systems applications. PREREQUISITES: Technology 2821 and 2831.

**4801. Antenna Technology. (3).**

Detailed examination of transmission lines and antennas, using applications approach with minimum of purely mathematical analysis; applications in both wire and wireless systems. PREREQUISITE: Technology 3811.

**4821. Microwave Technology. (3).**

Generation and transmission of energy at frequencies above 300 megahertz, emphasizing techniques and equipment which contrast sharply with those at lower frequencies. PREREQUISITES: Technology 3811 and Technology 4801 or permission of instructor.

**4841. Video Communications. (3).**

Theory and application of technical equipment for the generation, transmission, and reception of video signals, both closed circuit and broadcast. PREREQUISITE: Technology 3811.

**FOREST PRODUCTS TECHNOLOGY****1611. Wood Industries. (3).**

Introduction to the processes of designing, developing and producing wood products through lectures, lab experiences, in the different wood-working areas. Introduction to machine woodworking.

**2651. Survey of Forestry. (3).**

An introduction to forestry as it relates to the properties and utilization of woods.

**3601. Principles of Wood Processing. (3).**

The development of knowledge and skills through lecture and lab.

Experiences in designing and construction, laminating and bending, wood moisture relationships, air seasoning, and kiln drying of wood. PREREQUISITE: Technology 1611.

**3611. Industrial Woodworking. (3).**

Study of mass production techniques, jigs, and fixture design necessary for mass production of furniture, advanced wood joinery and industrial woodworking machines. PREREQUISITE: Technology 3601.

**3621. Upholstery. (3).**

A study of machine, tools, materials, principles of design, construction processes, methods, and their application to actual problems. PREREQUISITE: Technology 3601.

**3631. Forest Products. (3).**

The study and testing of wood and forest products, their sources, specification, manufacturing processes and uses. A study of wood properties and characteristics, and macro identification of woods by species. PREREQUISITE: Technology 1611.

**4661. Forest Resources. (3).**

Study of the relationship of forest products to the economy of the region. PREREQUISITE: 3 hours of Economics and junior classification in Forest Products Technology.

INDUSTRIAL ARTS EDUCATION

**2911. Foundations of Industrial Education. (3).**

Study of the development, objectives, and current trends of industrial arts and vocational education; required for teaching endorsement in Industrial Arts.

**3551. Drafting for Teachers. (3).**

Study of specific problems of the drafting teacher with emphasis on selection of content and activities. PREREQUISITE: Nine hours of Drafting and Design Technology.

**3651. Woodwork for Teachers. (3).**

Study of problems of the woodworking teacher, with emphasis on the selection of content and activities. PREREQUISITE: Nine hours of Forest Products Technology.

**3751. Metalwork for Teachers. (3).**

Study of problems of the metalwork teacher, with emphasis on the selection of content and activities. PREREQUISITE: Nine hours of Manufacturing Technology.

**3831. Survey of Electronics. (3).**

Brief coverage of applied electronics for prospective teachers. PREREQUISITE: Technology 2821.

**4351. Clinical Practice in Manual Arts Therapy. (3).**

Supervised clinical practice in the Physical Medicine and Rehabilitation Service at Veterans Administration Hospital, Memphis. PREREQUISITE: Senior classification, with major in Industrial Arts Education.

**4361. Organization of The General Shop. (3).**

Study of problems dealing with the selection and organization of general shop activities. PREREQUISITE: Technology 2911.

**4362. General Shop Applications. (3).**

This course deals with the implementation of the philosophy of the general shop with emphasis on curriculum planning. PREREQUISITE: Technology 4361.

**4371. Maintenance. (3).**

Practices in selection and care of tools, both hand and machine. PREREQUISITE: Industrial Arts Education major or minor.

**4375. Crafts for Teachers. (3).**

Study and experiences with craft materials.

## INDUSTRIAL SAFETY

**3386. Industrial Safety. (3).**

Study of industrial hazards and safety procedures.

**3387. Construction Safety. (3).**

Study of hazards and their control as related to the construction industry. PREREQUISITE: Technology 3386.

**4951. Fire Safety Problems. (2).**

Study of fire hazards and control. PREREQUISITE: Technology 3386.

**4952. Chemical Safety Products. (2).**

Study of chemical hazards and control. PREREQUISITE: Technology 3386.

**4953. Electronic Safety Problems. (2).**

Study of electrical hazards and control. PREREQUISITE: Technology 3386.

**4954. Traffic Safety Problems. (2).**

Study of traffic problems as they relate to industrial plants. PREREQUISITE: Technology 3386.

## MANUFACTURING TECHNOLOGY

**1711. Machine Production Techniques. (3).**

A study of metalworking equipment and machinery for production usage, including safety, care, layout, cutting feeds and speeds, tool grinding, drilling, tapping, shaping, turning, and milling.

**2718. Welding and Foundry. (3).**

Techniques and practices of gas, electric, and shielded arc welding. A study of basic patternmaking and casting of non-ferrous metals. PREREQUISITES: Technology 1611 and 1711.

**3421. Manufacturing Processes. (3).**

A study of the various processes and techniques used to shape materials into useful products. Techniques include cutting, molding, stamping, extruding, cold and hot forming, and grinding.

**3422. Metal Manufacturing Processes. (3).**

Advanced study and practice in metals machining and fabrication. Emphasis is on advanced techniques in duplicating equipment, numerically controlled machines, milling, shaping, grinding, and turning. PREREQUISITE: Technology 1711.

**3731. Metallurgy. (3).**

A study of the properties of ferrous and non-ferrous metals with emphasis on; physical and mechanical properties, cold and hot working, heat treating, hardening, and testing. PREREQUISITES: Technology 1711 and Chemistry 1111.

**4460. Motion and Time Analysis. (3).**

A study of methods improvements, motion economy, and the development of time standards by direct observation, predetermined time standards, and synthesis. PREREQUISITE: junior classification.

**4462. Inspection and Quality Control. (3).**

Inspecting products and controlling the quality through the use of statistical techniques. Topics for study include administration of inspection, tolerance systems, gaging, sampling inspection plans, frequency distributions, control charts for variables and control for fraction defective and defects per unit. PREREQUISITE: Management 2711.

**4464. Production Control. (3).**

The planning and control of production with emphasis on intermittent and continuous manufacturing. Fields of study include forecasting, designing control forms, using visual controls, scheduling, dispatching, preplanning, and using critical path techniques. PREREQUISITE: Technology 4460.

**4466. Plant Layout. (3).**

Designing a plant with respect to material handling, machine location, auxiliary services, capital requirements, safety, and personnel organization. PREREQUISITE: Technology 4460.

**4468. Production Methods. (3).**

A study and comparative analysis of production methods and techniques used to manufacture various types of products. Emphasis is on plant visitation and analysis with respect to methods used, plant layout, production control procedures and time standards established. PREREQUISITES: Technology 4460, 4464, and 4466.

**4470. Human Performance Factors. (3).**

Determining the most effective way to integrate the man and the task he is to perform by studying work procedure, workstation layout, and equipment design. PREREQUISITE: Technology 4460.

## SUPPORTING COURSES

**1411. Introduction to Technology. (3).**

An introduction to technology in industry, with emphasis on the use of references, the slide rule, precision measuring instruments, and systems of mensuration.

**2411. Instrumentation and Testing. (3).**

Studies of testing procedures, methods, and equipment as applied to quality control. PREREQUISITES: Technology 1411, 1511, 1811, and Mathematics 1212.

**2431. Technical Report Writing. (3).**

Studies of fundamentals of technical report writing; emphasis is placed on the use of graphs, charts, and drawings as used in the communication of technical information. PREREQUISITES: Technology 1511 and English 1102.



**2551. Industrial Design. (3).**

Theory and application of design and principles in industry. PREREQUISITE: Technology 1511.

**2561. Constructive Design. (3).**

Laboratory experience in three-dimensional design for both handcraft and mass production. Woods, metals, and plastics are basic media for work with both models and full-scale design. PREREQUISITE: Technology 2551.

**3400. Forces and Force Systems. (3).**

A study of force systems and their solution; that branch of mechanics which deals with forces and with the effects of forces acting upon rigid bodies at rest. PREREQUISITES: Technology 2511, Mathematics 1321, Physics 2112.

**3401. Strength of Materials. (3).**

Analysis and study of structural materials. PREREQUISITES: Technology 3400, Mathematics 1321, Physics 2112.

**3411. Industrial Materials. (3).**

A course designed to acquaint the student with the various properties of structural materials and the methods used to test for these properties.

**4381. Principles of Supervision. (3).**

Study of the functions of supervisory personnel.

**4831. Computer Technology I. (3).**

An introduction to computer programming; PL/I programming techniques; functions and subroutines; arrays and structures; card, tape, and disk processing; basic characteristics of a symbolic machine language; similarities and differences between PL/I, FORTRAN, COBOL, and ALGOL; selecting a programming language for specific applications. PREREQUISITE: Mathematics 1212 and permission of instructor.

**4832. Computer Technology II. (3).**

An introduction to internal computer organization and configuration design; component and device characteristics; data representation, transfer and storage; Boolean algebra; combinational logic. PREREQUISITE: Technology 4831 or an equivalent computer software course.

**4833. Analog Computer Technology. (3).**

Design and function of analog computer elements, problems, preparation and representative solutions of program problems. Advanced computer software and hardware topics; multi-programming; teleprocessing; operating systems; overlay structures; design, development, and implementation of generalized application program; utilization of MSU statistical library programs; analog and digital simulation techniques. PREREQUISITES: Technology 4831 and 4832.

**4944. Problems in Technology. (3).**

Study and research in the specific area. PREREQUISITE: Senior classification for majors and minors in Technology who can offer satisfactory evidence of being qualified to benefit by the course.

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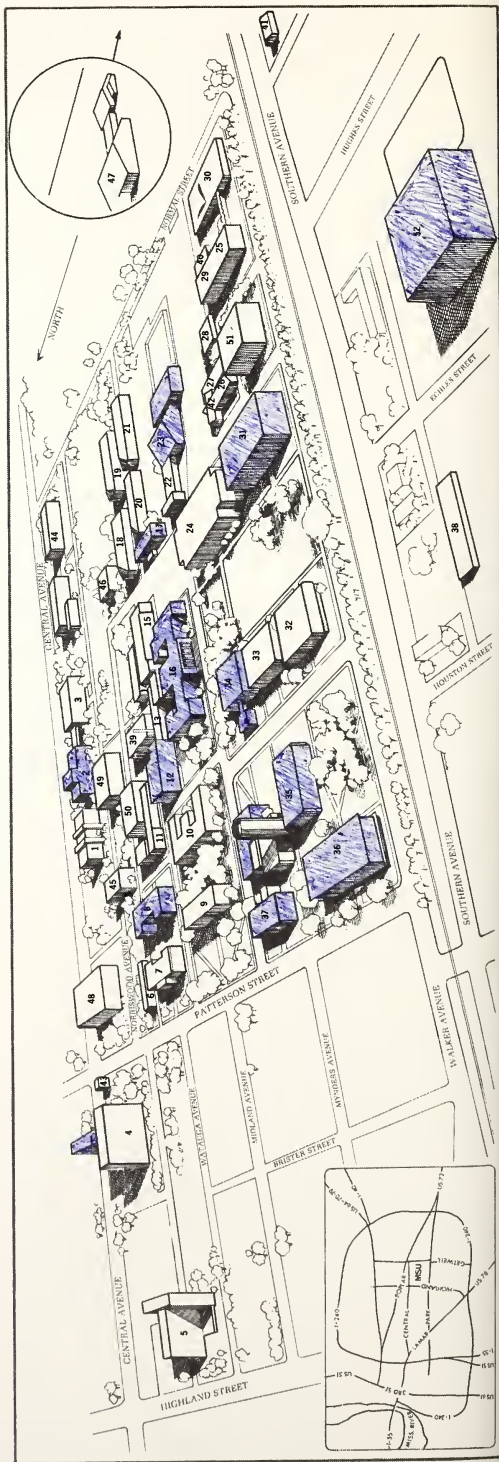
## NOTES

## NOTES

## NOTES

1. The School of Law Building
2. Speech and Drama Building
3. Music Building
4. Central Towers
5. Highland Towers
6. Panhellenic Building
7. Nellie Angel Smith Hall
8. Rawls Hall
9. West Hall
10. Mynders Hall
11. Technology Building
12. Jones Hall
13. The Cafeteria
14. Maintenance Building
15. Manning Hall
16. Administration Building
17. Scates Hall
18. McCord Hall
19. Browning Hall
20. Hayden Hall
21. Robison Hall
22. WKNO-TV
23. The Field House
24. University Center
25. Engineering Library
26. Engineering Annex
27. Electronics Technology
28. Engineering Mechanics Lab
29. The Ernest C. Ball Building (Education)
30. University Campus School
31. J. Millard Smith Chemistry Building
32. Buford Ellington Biological Sciences Building
33. Frank G. Clement
34. The College of Business Administration Building
35. Brister Library
36. Malcolm R. Patterson Building
37. Johnson Hall
38. Training Building
39. Heating Plant
40. Athletic Offices
41. Alumni House
42. Art Annex
43. Information Center
44. Engineering Building
45. Psychology Building
46. A.G. Hudson Health Center
47. Athletic Facilities\*
48. The College of Business Administration (new building)\*
49. Mathematics/Foreign Languages Building
50. Meeman Journalism Building\*
51. Graduate Sciences Building\*
52. Physical Education Facilities\*

\*under construction







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